



Medical Officer of Health's Department.

Town Hall, Sunderland.

H. RENNEY, M.D., D.P.H.

(MEDICAL OFFICER)

5th March 1906.

Dear Sir,

I shall have pleasure in forwarding you a copy of my Annual Report when it is published.

Yours faithfully,

Henry Renney
Medical Officer of Health.

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COUNTY BOROUGH OF SUNDERLAND.

Annual Report

ON THE

Health and Sanitary Condition of Sunderland for the Year 1905.

HENRY RENNEY, M.D., B.S., B.Hy., D.P.H.,

MEDICAL OFFICER OF HEALTH,

MEDICAL SUPERINTENDENT OF THE BOROUGH

SANATORIUM.

Sunderland:

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1906.

COUNTY BOROUGH OF SUNDERLAND.

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Meetings every alternate Thursday, at 7-30 p.m.

Accounts at 7-15 p.m.

OFFICIALS OF THE HEALTH DEPARTMENT.

~~~~~

Medical Officer of Health and Medical Superintendent  
of the Borough Sanatorium:

HENRY RENNEY, M.D., B.S., B.Hy., and D.P.H. (Durh.)

Deputy Medical Officer of Health:

RALPH T. VAUX, M.B., B.S. (Durh.)

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MISS M. A. MACRAE.

Engineer to the Borough Sanatorium:

MR. W. S. OATES.

Housing Superintendent, Harrison Buildings :

MR. JOSEPH D. WARD.

Lady Health Visitor :

MISS E. E. RIGHTON (Cert. San. Inst.)

HEALTH DEPARTMENT,

TOWN HALL,

SUNDERLAND.

*To the Chairman and Members of the  
Health Committee.*

GENTLEMEN,

I beg to submit for your consideration my  
Report on the Health of the Borough and the  
work of the Health Department for the year  
1905.

I am, Gentlemen,

Your obedient Servant,

HENRY RENNEY,

Medical Officer Health.

May 21st, 1906.

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# County Borough of Sunderland.

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## HEALTH DEPARTMENT.

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# ANNUAL REPORT

## FOR THE YEAR 1905.

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### POPULATION.

The population, estimated to the middle of 1905, was 152,659.

### THE DEATH-RATE.

The death-rate from all causes for 1905 was 18·6 per 1,000 of the population, being a decrease of 0·7 per 1,000 as compared with 1904, and 2 per 1,000 below the average of the last ten years. It is in fact the lowest death-rate recorded in Sunderland since 1888, when it was 18·0 per 1,000, rising in 1899 to 22·8 per 1,000. While, however, the death-rate of Sunderland is steadily decreasing, it is not falling in the same proportion as the rates for the 76 great towns and the whole of England and Wales.

### THE BIRTH-RATE.

While the number of births was slightly in excess of that of 1904, yet the birth-rate for 1905 works out at a lower figure than the previous year, the rate for 1905 being 34·2 per 1,000. It will be seen on reference to Table C., page 34, that the birth-rate has been steadily declining since 1900, being now 2 per 1,000 less than in that year. The rate is, however, 7 per 1,000 higher than that for England and Wales, and 6 per 1,000 higher than the average birth-rate of the 76 large towns,

The following Table is an estimation of the number of females living in Sunderland at child-bearing years for the last ten years (calculated from the Census Returns for the years 1891 and 1901), and the number of children born in each year :—

| YEAR. | Estimated Number<br>of Women at<br>Child-bearing Age. | Number of<br>Children<br>Born. | Number of Children<br>Born per 1000<br>Women at Child-<br>bearing Age. |
|-------|-------------------------------------------------------|--------------------------------|------------------------------------------------------------------------|
| 1896  | 34146                                                 | 4873                           | 142                                                                    |
| 1897  | 34501                                                 | 4905                           | 143                                                                    |
| 1898  | 34980                                                 | 5077                           | 145                                                                    |
| 1899  | 35404                                                 | 5184                           | 146                                                                    |
| 1900  | 35834                                                 | 5256                           | 146                                                                    |
| 1901  | 36269                                                 | 5279                           | 145                                                                    |
| 1902  | 36709                                                 | 5391                           | 147                                                                    |
| 1903  | 37154                                                 | 5195                           | 139                                                                    |
| 1904  | 37605                                                 | 5194                           | 138                                                                    |
| 1905  | 38062                                                 | 5223                           | 137                                                                    |

It will be observed from the above Table that although the number of women at child-bearing age is increasing, yet for the last three years the birth-rate has been falling.

### MARRIAGES.

The number of marriages for the Sunderland District (which includes townships outside the Municipal Area) was 1,572, an increase of 27 over the previous year. The marriage-rate would appear, therefore, to be rising slightly, being 10·29 per 1,000 of the population, as against 10·22 per 1,000 for 1904.

### INFECTIOUS DISEASES.

#### SMALLPOX.

During the year there were only two cases of Smallpox. One came from the neighbourhood of Felling; the origin of the other could not be traced. The patients were isolated at once, and prompt measures taken to prevent any spread of the disease.

#### OTHER INFECTIOUS DISEASES.

On referring to Table G., page 37, it will be seen that there has been an increase in the number of deaths from Measles, there having been 102 deaths, an increase of 43 on the previous year. The type of



Scarlet Fever has been, on the whole, mild. There were a good many bad cases, but only one death. The mortality from Diphtheria showed an increase of three only, although there were more than twice as many notified than in the previous year. Whooping Cough mortality showed a slight decline, as did that also of Enteric Fever.

#### DIARRHŒA.

It is satisfactory to note that there was a diminution of the number of deaths from Diarrhœa to the extent of 41, being a reduction of 25 per cent. of the number recorded in 1904; notwithstanding the fact that both the maximum temperature of the air, and the readings of the four-foot earth thermometer were higher during the Diarrhœa period of 1905 than they were in that of 1904.

#### CANCER.

This disease showed a reduction of 15 deaths as compared with the previous year.

#### PHTHISIS.

The number of deaths due to Tubercular Consumption (Phthisis) was about the same as the previous year; taking all the Tubercular diseases together, 359 in all, there was an increase of 17.

Phthisis, or Consumption, is much too prevalent in the Borough. During the year 211 persons died from Consumption alone, and 148 from other forms of Tubercular disease, making altogether 359 deaths from this dreadful scourge. That is to say, practically, one out of every eight deaths in Sunderland during 1905 was due to some form of Tuberculosis; or 2·35 per 1,000 of the population. In other words, the deaths from Tubercular disease were 15 in excess of those from the whole of the other infectious diseases added together. It has been estimated that for every person who dies of this disease in any one year there are three people going about suffering from it in a more or less active form.

The majority of these are expectorating in the streets, public places of resort, trains, and trams (in defiance of notice prohibiting spitting in the two latter conveyances), so that, roughly speaking, there are in Sunderland about 600 persons disseminating Consumption. The cause of the disease is a micro-organism, the bacillus

tuberculosis, found in thousands in even a small amount of expectoration. This, on drying, is disseminated by currents of air, and inhaled by every one coming into contact with it. People whose vitality is lowered form a suitable soil in which the bacillus can grow. The infection is not rapid like Scarlet Fever and other infectious diseases, but takes a long time to manifest itself. Men working near a Consumptive person may in time become infected. It is in this way, viz., by close contact, that it spreads in the home. It is said that one out of every three deaths at the working years of life is due to some form of Tuberculosis. Consumption is one of the chief causes of pauperism, for it frequently takes away the chief bread-winner in the family; it is also a great drain on the financial resources of a town.

#### WHAT HAS BEEN DONE IN SUNDERLAND?

Besides the ordinary hygienic improvements the following steps have been taken:—

1. Voluntary Notification of Consumption was commenced in March, 1901.

2. The Corporation subscribe for two beds in the County of Durham Sanatorium for Consumption at Stanhope.

3. The sputum of suspected cases is examined at the College of Medicine, Newcastle, on the application of any Medical Practitioner in the Borough, at the expense of the Corporation.

4. After death has occurred from Consumption the rooms, bedding, etc., are disinfected.

5. The Corporation appointed a Lady Health Visitor, who commenced her duties in December, 1904. After notification of the disease is received at the Health Office, the Health Visitor, who is a Trained Nurse, visits the cases in the poorer parts of the town, and gives advice to the patients or friends as to the prevention of infection, and the necessity for hygienic methods, ventilation, etc.

In Brighton, a number of beds are set aside at the Sanatorium for infectious diseases, and here Consumptive patients receive one month's training and treatment so that they may know how not to infect others. Dr. Newsholme says: "Each year I become more con-

vinced of the great value of this means of educating the patients in the practical management of their disease, and of the importance of continuing to keep in the forefront the effort to train the patients, which is even more important from the public standpoint than their cure."

I am of opinion that we might take a certain number of cases at the Borough Sanatorium for one month each; they could easily be admitted for, at any rate, six months during the year at that period when we have few cases of Typhoid Fever. I do not think the cost would exceed £100 per annum, if 16 patients were taken at a time. I believe that the experiment would be productive of good, and would tend, ultimately, towards a reduction in the number of cases of Phthisis. At Brighton the patients are promised re-admission after an interval, provided that during the meantime they have carried out what they have been taught in the Sanatorium. It is found that they eagerly qualify for such re-admission.

Living in a pavilion of the Sanatorium for this period would give them a practical education which they would not forget, and the methods learnt there would be practised on their return home. Thus 96 Phthisical people every year could be taught how not to spread Consumption, and, I think, as time went on, we could reasonably hope that this procedure would diminish very perceptibly the number of cases. We ought to stamp out the disease in this country as effectually as other plagues have been exterminated.

## REPORT OF THE CORPORATION CASES SENT TO THE STANHOPE SANATORIUM.

Since June, 1901, 50 persons have been treated in the Stanhope Sanatorium as Corporation patients.

Four of these are still in the Sanatorium.

26 are dead.

17 are well.

1 is ill.

2 cannot be traced (one of these cases went to Canada).

Of those who died the average duration of life after discharge from the Sanatorium was two years.



Of the 17 who are in health :—

2 have been out  $4\frac{1}{2}$  years.

2 have been out 4 years.

1 has been out  $3\frac{1}{2}$  years.

1 has been out 3 years.

2 have been out  $2\frac{1}{2}$  years.

1 has been out  $1\frac{3}{4}$  years

2 have been out  $1\frac{1}{2}$  years.

2 have been out 1 year.

1 has been out 10 months.

1 has been out 9 months.

1 has been out 6 months.

1 has been out 3 months.

For the open-air treatment of Consumption to be successful, and by that I mean that the disease should be arrested permanently, two things are essential.

The first is, that only suitable cases in the early stage of the disease should be admitted.

The second is, that after the process has been arrested by open-air treatment the patient should not return to his former environment, but should obtain some form of employment altogether in fresh air, such as farming. To go back to the old surroundings, in my opinion, means that sooner or later the disease will return—not in all cases, for I know that many have not relapsed, but in the majority I am afraid this is so. My Medical Confrères are aware of this, and they cannot be too particular in obtaining a specimen of the expectoration as soon as possible, and having it examined for tubercle bacilli. The records of cases which have received open-air treatment at an early stage are very gratifying. The majority of those cases in which the disease is arrested would not again become infected if they could live under suitable conditions, but, unfortunately, so many have to go back to unfavourable localities. What is wanted is some National Movement to provide Farm Colonies for these cases.



## DECREASE OF TYPHOID FEVER.

The following figures are worth consideration :—

Number of cases of Typhoid and Continued Fever notified  
during the last 10 years.

| Year. | Number of<br>Cases of<br>Typhoid. | Number of<br>Cases of<br>Continued<br>Fever. | Total. |
|-------|-----------------------------------|----------------------------------------------|--------|
| 1896  | 260                               | 46                                           | 306    |
| 1897  | 203                               | 29                                           | 232    |
| 1898  | 452                               | 50                                           | 502    |
| 1899  | 297                               | 48                                           | 345    |
| 1900  | 301                               | 32                                           | 333    |
| 1901  | 244                               | 22                                           | 266    |
| 1902  | 211                               | 19                                           | 230    |
| 1903  | 121                               | 14                                           | 135    |
| 1904  | 128                               | 9                                            | 137    |
| 1905  | 139                               | 6                                            | 145    |

In analysing this Table, I would draw attention to the fourth column which gives the total number of cases of Typhoid and Continued Fever notified in each year. It will be seen that the totals have diminished steadily since 1898, when we had an epidemic of Typhoid. As a rule, Continued Fever turns out to be Typhoid, after the case has been some time under observation; therefore, the fourth column may be taken, for all practical purposes, to give the number of cases of Typhoid Fever in each year.

On referring to column 3, it will be observed that the number of cases of Continued Fever has fallen *pari passu* with the Typhoid, viz., from 50 in 1898 to 6 in 1905, bearing out what I have said as to the relationship of the two diseases. Districts which some years ago were perfect hot-beds of Typhoid Fever are now almost entirely free, there being only a sporadic case now and then. These are the districts where the conversion of privy middens into w.c.'s, and the repaving of yards and other sanitary improvements have been effected.

Going some years further back the incidence of Typhoid and Continued Fever was even worse, as the following Table will show :—

| Year. | Number of Typhoid Cases. | Number of Cases of Continued Fever. | Total. |
|-------|--------------------------|-------------------------------------|--------|
| 1890  | 311                      | 102                                 | 413    |
| 1891  | 271                      | 85                                  | 356    |
| 1892  | 284                      | 104                                 | 386    |
| 1893  | 801                      | 117                                 | *918   |
| 1894  | 588                      | 80                                  | 668    |
| 1895  | 840                      | 99                                  | †939   |

\* It is interesting to note that the Report of the Medical Officer of Health for 1903 specially refers to the privy middens, and states that the greatest number of cases was reported from districts where these conveniences were mostly in evidence. The action which the Health Committee have taken in abolishing them has therefore been proved to be fully justified.

† Milk-borne epidemic.

### MEASLES.

During 1905, Measles was the registered cause of 102 deaths.

The following Table gives the ages at death :—

| Age period.        | Number of Deaths. |                                  |
|--------------------|-------------------|----------------------------------|
| Under 1 year.....  | 20                | } 95                             |
| 1 to 2 years ..... | 43                |                                  |
| 2 to 3 „ .....     | 18                |                                  |
| 3 to 4 „ .....     | 11                |                                  |
| 4 to 5 „ .....     | 3                 |                                  |
| 5 to 6 „ .....     | 5                 |                                  |
| 6 to 7 „ .....     | 1                 |                                  |
| Over 7 years.....  | 1                 | Occurred at the age of 35 years. |

Table J., page 39, gives the deaths from this disease for the last 10 years, and it will be observed that we usually have a good many deaths every year.

I wish to particularly point out what a serious disease Measles is—in 1905, while the deaths from Scarlet Fever, Whooping Cough, Diphtheria, and Typhoid Fever numbered 122, Measles caused 102, or nearly as many deaths as all the other Infectious Fevers put together. This state of things should be remedied, if possible. Taking the experience of other towns, it seems that more children suffer from Measles in the age-period 1 to 5 than at any other. Statistics bearing on this point have been very fully worked out by Dr. Newsholme, Medical Officer of Health for Brighton, from whose Annual Report for 1904 the following Table is taken:—

Table copied from Dr. Newsholme's Annual Report of the Health of Brighton for 1904.

| DEATHS from Measles in 1904. |       |         |        | ALL KNOWN CASES of Measles in 1904 (including deaths). |         |        |
|------------------------------|-------|---------|--------|--------------------------------------------------------|---------|--------|
| Age.                         | Male. | Female. | Total. | Male.                                                  | Female. | Total. |
| 0 to 3 months.....           | ...   | ...     | ...    | 3                                                      | 1       | 4      |
| 3 „ 6 „ .....                | 1     | ...     | 1      | 5                                                      | 6       | 11     |
| 6 „ 12 „ .....               | 10    | 9       | 19     | 35                                                     | 30      | 65     |
| Total under 1 year           | 11    | 9       | 20     | 43                                                     | 37      | 80     |
| 1 to 2 years ...             | 22    | 15      | 37     | 76                                                     | 65      | 141    |
| 2 „ 3 „ ...                  | 9     | 8       | 17     | 87                                                     | 63      | 150    |
| 3 „ 4 „ ...                  | 4     | 3       | 7      | 114                                                    | 83      | 197    |
| 4 „ 5 „ ...                  | 1     | 7       | 8      | 98                                                     | 96      | 194    |
| 5 „ 6 „ ...                  | 1     | 4       | 5      | 98                                                     | 104     | 202    |
| 6 „ 7 „ ...                  | ...   | ...     | ...    | 78                                                     | 66      | 144    |
| 7 „ 8 „ ...                  | ...   | ...     | ...    | 34                                                     | 36      | 70     |
| 8 „ 9 „ ...                  | ...   | ...     | ...    | 12                                                     | 9       | 21     |
| 9 „ 10 „ ...                 | ...   | ...     | ...    | 8                                                      | 4       | 12     |
| 10 „ 11 „ ...                | ...   | ...     | ...    | 4                                                      | 7       | 11     |
| 11 „ 12 „ ...                | ...   | ...     | ...    | ...                                                    | 3       | 3      |
| 12 „ 13 „ ...                | ...   | ...     | ...    | 2                                                      | 3       | 5      |
| 13 „ 14 „ ...                | ...   | ...     | ...    | ...                                                    | 2       | 2      |
| 14 years.....                | ...   | ...     | ...    | ...                                                    | 2       | 2      |
| Total .....                  | 48    | 46      | 94     | 654                                                    | 580     | 1234   |

Dr. Newsholme says: “Of the 1,234 cases of Measles known to have occurred during 1904, 1,109 attended Elementary Schools, or occurred in houses secondary to cases among scholars. In 125 other cases, the first case in each household did not attend school . . . .”

“Judging from general experience there is little doubt that Measles



is spread to a very great extent by the attendance at school of children in the early infectious period before the rash appears." With regard to the fatality of Measles, he says: "In children under 1 year it was something under 25 per cent.; in children 1—2, under 22 per cent.; in children, aged 2—3, under 11·3 per cent.; in children 3—4, under 3·6 per cent.; in children 4—5, under 4·1 per cent.; in children 5—6, under 2·5 per cent.; while among the 270 known cases at ages 6 and upwards no deaths occurred."

It will be seen by referring to the Table of Measles for Sunderland on page 8, that in 1905, 95 out of 102 deaths occurred in children at the age of 5 years and under.

This is not the experience of one or two localities only, but it is the general experience. Unfortunately the public regard Measles as a very trivial disease, and I have known parents give their children every facility for becoming infected with it, as they think they are certain to get it some time or other, and therefore, it is best got over as soon as possible. There could not be a greater fallacy, for the longer we can protect a child from Measles the less chance there is of it taking the disease at all; as will be seen from the foregoing Tables, the fatality after the age of 6 is practically nil. What can be done to lessen this mortality? Hospital isolation would not be of much avail, as the disease is infectious for several days before the rash appears, that is, before we can say the case is one of Measles. Hospital accommodation might be given in certain cases where the circumstances at home were unfavourable for treatment, but it would be impossible to provide accommodation for the total number of cases. The following is a copy of the Regulations passed by the Brighton Education Committee:—

1. No scholar or teacher shall attend school while suffering from Smallpox, Scarlet Fever (or Scarlatina), Typhoid Fever, Diphtheria, Whooping Cough, Chicken Pox, Measles, German Measles, Mumps, Ringworm, or Itch.

2. No scholar shall attend school from a house where there is, or has been recently, a case of Smallpox, Scarlet Fever, or Diphtheria, until the time stated on the notice from the Medical Officer of Health has elapsed.



3. No scholar shall attend an infants' school from a house where there is a case of Measles, German Measles, Whooping Cough, Chicken Pox, or Mumps; but children in departments for older children who have previously had the disease in question, need not be excluded under similar circumstances.

4. Teachers or other Officers of the Committee living in infected houses should consult the Medical Officer of Health, who will advise and decide as to the desirability of their continuance at school.

5. Every teacher suspecting that any scholar is suffering from an infectious disease mentioned in Regulation 1, or comes from an infected house, shall at once isolate the child and report to the Head Teacher who, if satisfied there are reasonable grounds of suspicion, shall exclude the suspected scholar, and notify the Medical Officer of Health on Form A.

Special attention should be paid to cases of "Sore Throat."

6. The Attendance Officer shall promptly notify to the Medical Officer of Health on Form B any case coming to his knowledge of "Sore Throat," Whooping Cough, Chicken Pox, Measles, German Measles, Mumps, Ringworm, or Itch, or any case in which it is suspected that these diseases exist, and also any suspected cases of Smallpox, Diphtheria, or Scarlet Fever in respect of which it is found that no instructions have already been issued by the Sanitary Authority.

This obligation applies to the cases visited by the Attendance Officer at the scholars' homes.

7. The Head Teacher shall furnish the Medical Officer of Health with similar information to that mentioned in Regulation 6, when he or she obtains information at the school of any such illness, in respect of which the teacher has reason to suspect that information has not been already sent to the Medical Officer of Health.

The action to be taken in the cases notified above, under Regulations 6 and 7, will be communicated by the Medical Officer of Health to the Head Teacher and the Clerk to the Education Committee as quickly as investigation can be completed.

The best method of dealing with Measles appears to be that adopted by Brighton in Clauses Nos. 1 and 3 of their Regulations, viz. :—“ That no one suffering from Measles should attend school, and that no scholar shall attend an infants' school from a house where there is a case of Measles, but children in departments for older children WHO HAVE PREVIOUSLY HAD THE DISEASE need not be excluded under similar circumstances.”

Measles appears not to be transmitted from the sick to the healthy except by contact with, or being in close proximity to the person infected; it is probably not carried by articles of clothing, etc. The foregoing regulations have been found satisfactory in checking the spread of the disease in Brighton. I should be glad if the Sunderland Education Committee would adopt similar regulations. At school, children under the age of 5 are much exposed to the risk of Measles; if such children were excluded from attending they would not be so likely to become infected as they are at present, for in large classes the infection exists in a concentrated form. The old idea that they would be as likely to contract it when playing in the streets is not tenable. If, however, there is a large outbreak of Measles in a school the only way to stamp it out is to close the school. This method has met with success in other towns. I have made a trial of it in two instances, with the result that in both cases the outbreak was quickly arrested.

I have long been convinced of the necessity for excluding children under the age of 5 years from attending school, not only on account of their greater liability to take Measles below this age-period, but also Whooping Cough, Diphtheria, and other Infectious Diseases.

They are much more susceptible to all these diseases at this period and the fatality is much higher, the majority of the fatal cases occurring before the age of 5 years. The opinion of those who have studied the subject is, that so far as education is concerned, the children would become quite as proficient, if not more so, if they commenced school at the latter age, and that the practice of sending them before the age of 5 years is not only wasteful, but may be directly injurious to their mental and physical condition.

In June, 1905, the Education Committee passed the following Resolution:—

“That the Education Department be asked to relieve the Local Education Authority of the obligation to provide accommodation in their Schools for children under the age of five years.”

On the 19th August, 1905, the Education Committee agreed to the following Resolution:—

“That children under the age of 5 years be not admitted to the Public Elementary Schools in the Borough, where such admission would have the result of bringing the average attendance above the authorised accommodation.”

### WHOOPING COUGH.

Whooping Cough was responsible for 58 deaths. The public are still exceedingly careless in exposing children suffering from this dangerous infectious disease. It is not an uncommon thing for persons to allow children so suffering to be in public assemblies, in trams, trains, and other public conveyances, thus facilitating the spread of the disease.

Whooping Cough is fatal mostly on account of the accompanying lung complications, or from convulsions. My remarks on Measles as to the age-period and increased fatality at this period apply quite as much to Whooping Cough.

Children should be shielded as much as possible from the possibility of infection, for the idea that they must necessarily take this disease is quite erroneous.

Table showing the Deaths from Whooping Cough in 1905.

| Age-Period.   | Deaths. | Total. |
|---------------|---------|--------|
| Under 1 year. | 26      | } 58   |
| 1 to 2 years. | 18      |        |
| 2 to 3 „      | 5       |        |
| 3 to 4 „      | 6       |        |
| 4 to 5 „      | 3       |        |
| Above 5 „     | 0       |        |



## DIPHThERIA.

Diphtheria has been gradually increasing of late years in most of the large towns, including Sunderland. It is caused by a bacillus which is found in the throat and upper parts of the respiratory tract. It is exceedingly infectious. It spreads directly from the sick to the healthy, and attacks children mostly, although adults are not immune. The bacillus or micro-organism is found in a proportion of the throats of those who come into close contact with the patient, and although they may not take the disease themselves they may transmit the micro-organisms to other people whose vitality is insufficient to resist their attack, and hence they fall victims to the disease. It is thus that infection takes place in the classrooms of schools. A child may have, apparently, nothing wrong with it, or only a very slight sore throat, and yet be suffering from a mild attack of Diphtheria, so that many cases may occur before the disease is discovered. As a rule, there are symptoms which draw attention to the case, but it is the concealed cases which are productive of so much mischief. After convalescence is established it does not follow that the micro-organisms disappear from the throat—they may indeed persist from one to nine months, so that on returning to school the child is very often still infectious and continues to disseminate the disease. The following is an extract from a paper on Diphtheria read by Dr. H. J. Hutchens, D.S.O., D.P.H., Oxon, Demonstrator of Bacteriology at the University of Durham College of Medicine, Newcastle-on-Tyne:—"One of the pupils at a girls' private boarding school contracted Diphtheria. As soon as the true nature of the disease was recognised, the throats of the inmates of the establishment, some thirty in all, were examined. Diphtheria bacilli were found in the Cook's throat and in no one else's. On being questioned the Cook admitted having visited a neighbouring town some three or four days previously, and, while there, had been in contact with a case of Diphtheria. These statements were investigated and found to be correct. There was no Diphtheria in the town in which the school was situated, and the Cook herself was in perfect health." The above is a good example of how Diphtheria is often introduced. It is said that the disease often attacks the inhabitants of the more recently erected houses (and therefore, presumably, more sanitary) in a town. I find this to be the case in Sunderland, and I have been for some time investigating the subject, and hope in time to find a solution of the problem.

It is easy to understand how a child at school may spread the disease, whether actually suffering, or convalescent, or a "contact" with bacilli in the throat, for he is constantly projecting the bacilli into the air every time he speaks, coughs or sneezes ; then again, there is no doubt that the interchange of slates, pens and pencils is a means of conveying the bacilli from the infected to the healthy. Children put the ends of penholders and pencils in their mouths ; too often the slates are cleaned with the bare hand, even where slate-cloths are provided.

There is an excellent suggestion that each child should have its own box of pens and pencils, and should not be allowed to exchange them ; slates should be dispensed with altogether. Dr. Peskett, Medical Officer of Health for the Leyton Urban District Council, says, in his report for 1904 : "For slates, paper and pencils have been substituted. The value of this regulation, from a health point of view, cannot be over-rated. I feel certain much infection was carried about when slates were used, owing to the interchange of slates and sponges, as it was impossible to be sure of the same pupils using the same slate and sponge every day. Thus the slate used by a child in the early stage of Measles, Diphtheria, or Scarlet Fever, etc., might be handled on the next occasion by a perfectly healthy child, and illness and misery be thus transferred from one home to another." The water tap may also be a means of communicating Diphtheria if an infected child applies his mouth to it for the purpose of obtaining a drink of water. Dr. Hutchens, whom I have before quoted, says : "In America recently, the continuance of an outbreak of Diphtheria was traced to pencils used by children at school." He further says : "Drains and 'insanitary surroundings' which formerly used to be looked upon as a cause of Diphtheria, can now only be regarded as contributing to the lowering of the general health, and so making the individual more susceptible to any infecting agent." The household cat undoubtedly does sometimes suffer from Diphtheria, and this may be another unsuspected cause. Dr. Hutchens says : "There is now no question but that the only rational treatment of Diphtheria is treatment with Antitoxin . . . The only valid objection is its cost." The Health Committee have for some years provided Antitoxin free of cost to any Medical Practitioner wishing it for patients resident in the Borough, provided that those patients



cannot afford to pay the extra fee which would be required for its administration. The earlier Antitoxin is used the less the fatality ; indeed, as there is no danger attached to its use, it is often given as a preventive, and also in suspicious cases before the true nature of the malady has been discovered.

In suspected Diphtheria cases a bacteriological examination can be made at the College of Medicine, Newcastle-on-Tyne, at the expense of the Sunderland Corporation, so that there is no excuse for any one remaining in doubt as to the nature of the disease. Diphtheria could soon be exterminated if the throats of all persons who had been in contact with the infected person were examined bacteriologically. By this means the INFECTED contacts would be discovered, and should then be isolated, and their throats treated with Antiseptics until they were free from bacilli. Such a method of procedure is, I am afraid, almost impracticable with our present resources. It might be done in a very localised outbreak, but in an extensive outbreak, or where there are a good many cases in a large town it would be almost impossible. However, much more might be done than at present, in the examination of the throats of contacts, and in the case of children excluding them from school until they were certified non-infectious. I certainly am of opinion that no child who has been a contact should be allowed to attend school until at least one bacteriological examination of the throat proves negative. The same, of course, applies to a convalescent. Adults might be persuaded to use Antiseptic gargles until the throat was free from bacilli. Under existing conditions there is not adequate accommodation at the Sanatorium for the admission of Diphtheria : the Committee have the matter under consideration. Of course, disinfection of the patients' rooms, clothing, etc., is carried out at present, but that is a matter of minor importance as compared with the isolation of contacts and the destruction of the bacilli in their throats.

### CHOLERA PRECAUTIONS.

During the past year Cholera made its appearance in Western and Central Russia, and was prevalent in Germany in August.

In consequence of this prevalence, and in view of the possibility of some of the Baltic and North Sea Ports becoming infected, I had several consultations with H.M. Collector of Customs (J. Mason Cumberland, Esq., R.N.), the General Manager for the River Wear



Commissioners (J. Oliphant, Esq.), and the Consulting Manager (C. H. Dodds, Esq.), as to quarantine berths.

We decided that the most convenient berths would be :—In the case of small vessels, at the Old Quarantine Buoys, near the Commissioners' Quay ; and in the case of vessels of deep draught, at the North end of the New Extension of the South Dock. Acting under the Local Government Board Cholera Order for 1896, therefore, the Port Sanitary Authority and the Chief Officer of the Customs, together fixed upon these places as Quarantine berths.

Arrangements were made for the landing and isolation of infected persons, and a special watch was kept on all ships arriving from the Baltic and North Sea Ports. Fortunately, we had no occasion to make use of the berths, as there was not even a suspected case of Cholera.

### PERSONAL HYGIENE.

It is a matter for profound regret that man knows so little of himself and of the laws which govern the machinery of his body. It is a fact that large numbers perish before their appointed time owing to ignorance of these laws. They die, either directly or indirectly, from lack of knowledge which begets indifference as to their health. Impairment of health, which at first is only trivial, is allowed to go on until the condition is such that it is often impossible to cure it, and death ensues.

Numbers perish in this way whose death has not been caused by any so-called insanitary conditions. In these days when almost every science is being taught, it is strange that the elements of human anatomy and physiology are so neglected. Medical aid is not sought at the earliest opportunity, and much damage is often done before the doctor is called in. A "run-down" condition predisposes to a great many diseases ; thus the badly fed, badly housed, and the victims of overcrowding are the first to suffer. The ventilation of dwelling rooms, and especially of bedrooms, of schools, public buildings, and churches, is a most important matter, but one which is very much neglected. For efficient ventilation each adult should have allotted to him 1,000 cubic feet of air-space, and the air should be changed three times an hour. The bedroom window should be open at night, summer and winter, in all kinds of weather. Those who have given

this method of ventilation a fair trial never again prefer to sleep in a poisonous atmosphere. Personal cleanliness is too often neglected. Visiting as I do in the poorer parts of the town, I come across much neglect in this direction, especially in the case of children. Poverty is surely no excuse for this. I am still hoping that elementary anatomy and physiology will one day be taught in our schools. It would be far better to delete some other subject and introduce this, if the excuse is that there is not time to teach it at present, for the health of the rising generation will very largely depend on the acquirement of such knowledge.

### BACTERIOLOGICAL EXAMINATION OF FOOD, &c.

Samples of milk and of food and drugs are taken from time to time and submitted to chemical analysis, in order to determine whether they are genuine or not, and it is most important that this should be done. I think, however, that the time has arrived when we should not be content with the chemical analysis of milk and foods, but that these articles should be also submitted to bacteriological examination. I have it on the authority of a distinguished bacteriologist that milk from a tuberculous cow is frequently swarming with tubercle bacilli. In 1905, in Sunderland, 111 children under the age of 5 years died of tubercular disease. If only for the sake of the children, into whose dietary milk enters so largely, something should be done in this direction. Milk should be examined for *bacillus tuberculosis*, the presence of which indicates that the animal from which it was taken was tubercular, or that the pails into which the milk was received, or the hands of the milker were infected from previous contact with a diseased cow. It is quite possible also that the milker himself may be suffering from Consumption. It should be examined also for the *bacillus coli*, a normal inhabitant of the human and animal intestine, its presence indicating contamination from manure, or that possibly the cow was suffering from inflammation of the udder. Another organism found in milk is the *bacillus enteritidis sporogenes*, which also suggests previous sewage contamination. The following, which is from the Report of the Medical Officer of Health for Liverpool, for the year 1904, is instructive, reading:—"At Liverpool, in 1904, 370 samples of country milk were examined. Of these, 37 were tubercular. *Bacillus Coli* was found 119 times in 370 railway-borne milks, and 22 times in



town milks. *Bacillus enteritidis sporogenes* was found 35 times in 370 railway-borne samples of milk, and 8 times in 201 town milks."

"BUTTER.—Out of 29 samples *Bacillus Coli* was present in 4.

"CREAM.—17 samples gave evidence of *Bacillus Coli* in 6.

"CONDENSED MILKS.—38 samples were examined, all of which were found to be NOT sterile. There is no doubt that condensed milk is a most unsatisfactory product. Bacteria are usually present, and the milk, which was originally condensed, might have contained various products of the decomposition of Bacteria. These products are masked subsequently by the large quantity of sugar present, but their irritant properties are not destroyed.

"TINNED MEATS AND PASTES.—Only 30 out of 74 were sterile."

Cheese, Margarine, Preserves, Jellies, Shell Fish, Sausages, Sterilised Milks, and Pork Pies were also examined at Liverpool with a similar result. In the case of the so-called Sterilised Milks which were examined, not one was sterile. If similar samples were examined in Sunderland, I have no doubt we would get the similar results.

## EXAMINATION OF MILK SAMPLES IN SUNDERLAND.

In September, 1901, the Board of Agriculture issued a Regulation, which provided that : "Where a sample of milk contains less than 3 per cent. of milk-fat, it shall be presumed . . . , UNTIL THE CONTRARY BE PROVED that the milk is not genuine . . . ."

When, therefore, the Health Authority, acting by an Inspector under the Food and Drugs Acts, takes a sample of milk, and the sample is found on analysis to be below this standard, what usually follows is that the vendor of the milk, and those engaged upon his farm in connection with it, are brought as witnesses to show that the milk has been sold just as it came from the cow, no matter how far it comes below the standard of the Board of Agriculture.

In December, 1901, the Board issued a circular suggesting that, in the event of a vendor's milk being deficient in milk-fat, the Local Authority should enquire into the case, and, practically, take any evidence the vendor might have to give as to the genuine character



of the milk. A similar circular was again issued by the Board last year. It is very remarkable that, since 1902, the Sunderland Corporation has not been able to obtain a conviction against any farmer whose milk was shown by analysis to be below the above standard. Yet in 1903, 68 samples were purchased, and 11·7 per cent. were certified by the Public Analyst to be deficient in milk-fat; in 1904, 74 samples were purchased, and 17·5 per cent. were found to be deficient; in 1905, 62 samples were purchased, and 24·2 per cent. were certified to be deficient. The percentage of deficient samples has more than doubled between 1903 and 1905. It would appear that the circular of the Board of Agriculture has something to do with this unsatisfactory state of things, for that circular suggested that the Authorities should satisfy themselves as to the possibility of the milk falling below the standard at certain seasons of the year, and that they might refrain from taking proceedings. When a case is taken to Court, this circular is quoted, and the Magistrates' verdict is: "That while we consider this a very proper case for the Corporation to bring, yet there is no evidence that the milk has been tampered with."

I think it is time that, not only the farmer, but the public should be protected. There are farmers in this district from whom samples of milk are purchased, and, no matter when the sample is taken, it is always above the standard. I understand the question will probably be brought before the Association of Municipal Corporations, and I hope that something may be effected towards getting a fixed standard.

#### APPOINTMENT OF A LADY HEALTH VISITOR.

A new departure was made by the Health Committee on October 6th, 1904, when Miss E. Righton was selected to act as Lady Health Visitor, the appointment being made by the Council at their next meeting. Many of the large towns had previously appointed Lady Health Visitors, and the reports which were obtained were so satisfactory that the Committee decided to try the experiment.

After more than a year's trial, I can confidently say that I think they did the right thing. Miss Righton is a fully-trained Nurse (Medical and Surgical) of considerable experience, part of which was gained in a Children's Hospital. She holds the Certificate of the Royal Sanitary Institute, and is a Registered Widwife under the

Midwives' Act, 1902. She commenced her duties on December 12th, 1904. Her duties are as follows :—To work under the sole direction of the Medical Officer of Health in inspecting workshops and workplaces where women are employed. To inspect tenemented houses under the Bye-Laws relating to houses let in lodgings, and to report on the dirty condition and overcrowding of such premises. To visit cases of Consumption and Erysipelas in the poorer parts of the town, and to give advice on the prevention of infection. To enquire into Infantile Mortality, cases of Measles, Whooping Cough, Chicken Pox, Diarrhœa, etc., and to give advice on the prevention of the spread of infection. To report any nuisance which may come under her observation to the Medical Officer of Health or Chief Sanitary Inspector, but not to serve notices in these cases. To act as Inspector under the Midwives' Act of 1902, and to perform such other duties as shall be ordered by the Health Committee from time to time.

The Report on Infantile Mortality and the Report on the work of the Lady Health Visitor, which follows later, will give some idea of the amount of work which has been done.

### MIDWIVES' ACT, 1902.

For practical purposes this Act did not begin to operate until April 1st, 1905, when from and after this date it was enacted that no woman who is not certified under the Act shall take the title of Midwife, or any other name implying that she is a person specially qualified to practice Midwifery. (Penalty not exceeding £5.) Clause 2 of this First Section enacts that from and after April 1st, 1910, no woman shall habitually and for gain attend women in childbirth, otherwise than under the direction of a qualified Medical Practitioner, unless she be certified under this Act. (Penalty £10.) This Section shall not apply to legally-qualified Medical Practitioners or to anyone giving assistance in an emergency. Section II. makes provision for existing Midwives. Section III. gives the Constitution and Duties of the Central Midwives' Board. Section IV. deals with cases of appeal from the decision of the Midwives' Board by women thinking themselves aggrieved by any decision of the Board. Section V. deals with fees and expenses. Section VI. with the Midwives' Roll. Section VII. relates to the Secretary of the Board. Section VIII. enacts that



every Council of a County or County Borough throughout England and Wales shall be the Local Supervising Authority over Midwives within the area of the said County or County Borough. By Clause (1) of this Section it is the duty of the Supervising Authority to exercise general supervision over all Midwives practising in their area. (2) To investigate charges of malpractice, etc. (3) To suspend any Midwife from practice if necessary. (4) To report to the Board any one convicted of an offence. (5) To supply the names of those who have notified their intention to practice in their area and to keep a roll of Midwives. (6) To report the death of a Midwife or change of address to the Board. (7) To give notice of the effect of the Act.

The Council delegated to the Health Committee the powers or duties conferred or imposed upon them by this Act.

### UNDERGROUND CONVENIENCES.

During the year Public Conveniences and Lavatories for both sexes have been constructed at the South end of Wearmouth Bridge, and are now in use.

### HARRISON BUILDINGS.

Report of the Caretaker, Mr. Joseph D. Ward, for the year 1905.

On the 31st December, 73 tenants occupied the buildings, being an increase of 21 on the previous year. There were 44 two-roomed tenements occupied, being an increase of 9 on last year, and 29 three-roomed tenements, an increase of 12. There were vacant 3 two-roomed and 7 three-roomed tenements. The rents collected and paid into the Bank during the year amounted to £709 4s. 3d., being an increase of £216 17s. 8d. over 1904. The arrears of rent for the year amounted to £3 9s. 3d., or 1·16 penny in the £ of the total rent due. The population of the buildings numbers 305 persons, an increase of 71 over the previous year. They average about 1½ person per room. There were 15 births and 4 deaths. Of the deaths, one was an adult who died of heart disease; three were children, of whom two died of Bronchitis and one was due to premature birth. With the exception of several cases of Whooping Cough, there has been no infectious disease.



## CLEANSING DEPARTMENT.

The cleansing of the streets and removal of ashpit refuse, etc., continue to be efficiently dealt with by the Staff of this Department, under Mr. Sumners, whose Report is given on pages 44 and 45. It will be noticed on reference to Table P. that the number of applications to have ashpits emptied during the year was only 50, the lowest on record. The work of the Cleansing Department has never been better administered than at the present time.

The work is hampered, however, by the dropping of manure, led by farmers' carts into the country. There is need of a Bye-Law prohibiting the removal of manure and other noxious matter during the day.

## METEOROLOGICAL OBSERVATIONS, 1905.

Barometrical Readings are taken at the Health Office at 9 a.m. daily, and are corrected for temperature, height above sea-level and capillarity.

Readings of the Hygrometer, Maximum and Minimum Thermometers, Earth Thermometers, Rain-gauge and Anemometer are taken at the Mowbray Park daily at 9 a.m.

Table showing the average atmospheric pressure, humidity, and temperature for each month of the year 1905, with the total rainfall for each month.

|                                   | Jan.   | Feb.           | Mar.           | April.         | May.          | June.          | July.  | Aug.          | Sept.          | Oct.           | Nov.          | Dec.           |
|-----------------------------------|--------|----------------|----------------|----------------|---------------|----------------|--------|---------------|----------------|----------------|---------------|----------------|
| Barometer in inches.....          | 30.135 | 30.043         | 29.625         | 29.832         | 30.096        | 30.022         | 29.988 | 29.992        | 29.942         | 30.000         | 29.664        | 30.126         |
| Humidity .....                    | 84.5°  | 76.5°          | 76.6°          | 78.1°          | 70.0°         | 74.6°          | 65.0°  | 74.3°         | 76.8°          | 77.4°          | 83.5°         | 83.4°          |
| Maximum Shade<br>Temperature..... | 44.9°  | 44.1°          | 49.8°          | 48.5°          | 58.6°         | 60.8°          | 69.7°  | 64.3°         | 60.3°          | 50.5°          | 45.4°         | 45.8°          |
| Minimum Temperature ...           | 35.1°  | 35.5°          | 37.9°          | 37.8°          | 42.7°         | 49.2°          | 54.3°  | 51.6°         | 49.0°          | 45.9°          | 37.0°         | 38.7°          |
| Amount of Rain in<br>inches ..... | 0.31   | 0.71           | 1.44           | 2.50           | 0.60          | 0.84           | 1.07   | 2.52          | 1.92           | 3.43           | 4.45          | 0.31           |
| Prevailing Wind .....             | W      | W<br>and<br>SW | W<br>and<br>SW | W<br>and<br>NW | N<br>and<br>W | N<br>and<br>NE | W      | W<br>and<br>N | W<br>and<br>NW | W<br>and<br>NW | W<br>and<br>E | W<br>and<br>SW |

The Rainfall for the year was 20·1 ins., or 0·3 ins. less than in 1904, and 7·1 ins. below the average of the last 10 years. January and December were the driest, November being the wettest month of the year.

## INFANTILE MORTALITY, WITH COMMENTS ON THE WORK OF THE LADY HEALTH VISITOR.

In the Appendix, at pages 24 to 27, are four Tables dealing with Infantile Mortality in the Borough during the year. They are number V., and V. (A.), (B.), and (C.).

The first has been inserted on the order of the Local Government Board, and gives the deaths from stated causes in weeks and months under one year of age for the Borough of Sunderland.

Tables V. (A.), (B.), and (C.) are inserted to show the Infantile Mortality in each Registration Sub-District.

From Table V. it will be seen that 748 children died under the age of one year, causing a death-rate of 143 for every thousand births. This is the lowest Infantile Mortality figure we have had for 22 years; it is less than that of last year by 22, which means a saving of at least 110 lives. There were 5,042 births, of which 181, or 3·5 per cent., were illegitimate—or, to put it in another way, there were 35 illegitimate births to every 1,000 legitimate births. Illegitimacy has an important bearing on the chances of life of infants, for it is found that in this class the death-rate is very much higher.

The following is the number of the illegitimate births per 1,000 of the total births in each sub-district:—

|                        |      |                   |
|------------------------|------|-------------------|
| Sunderland East .....  | 43·9 | per 1,000 births. |
| Sunderland West .....  | 35·0 | „ „               |
| Sunderland North ..... | 24·0 | „ „               |



The following Table shows the number of deaths from the principal diseases, and the total deaths from all causes per 1,000 births :—

| DISTRICT.            | Total Deaths from all causes under 1 year per 1000 births | Atrophy. | Diarrhoeal Diseases (Diarrhoea, Enteritis, and Gastro-Enteritis). | Premature Birth. | Bronchitis. | Pneumonia. | Convulsions. |
|----------------------|-----------------------------------------------------------|----------|-------------------------------------------------------------------|------------------|-------------|------------|--------------|
| Sunderland East..... | 159                                                       | 29       | 24                                                                | 16               | 34          | 8          | 13           |
| Sunderland West ...  | 114                                                       | 20       | 20                                                                | 13               | 10          | 6          | 6            |
| Sunderland North ... | 165                                                       | 31       | 23                                                                | 24               | 13          | 21         | 9            |

Out of the 748 deaths, 133 or more than  $\frac{1}{6}$  died in the first week of life. In Sunderland East about  $\frac{1}{6}$ , in Sunderland West about  $\frac{1}{5}$ , and in Sunderland North about  $\frac{1}{4}$  of the total deaths under 1 year occurred during the first week of life. The majority of these was due to premature birth. The deaths under 1 month in any one district were equal, roughly speaking, to  $\frac{1}{3}$  of the total deaths under 1 year in that district. The principal causes of Infantile Mortality, as shown by Table V., were :—

|                                                                                         |             |
|-----------------------------------------------------------------------------------------|-------------|
| Atrophy .....                                                                           | 139 deaths. |
| Diarrhoeal Diseases, comprising<br>Diarrhoea, Enteritis, and<br>Gastro-Enteritis ... .. | 120 „       |
| Bronchitis .....                                                                        | 108 „       |
| Premature Birth .. .....                                                                | 88 „        |
| Pneumonia .....                                                                         | 55 „        |
| Convulsions .....                                                                       | 51 „        |

Total for principal Diseases 561. = more than  $\frac{5}{7}$  of total Deaths under 1 year

Tubercular disease caused 41 deaths, or 5 per cent. of the total deaths under 1 year. The common infectious diseases were responsible for 47 deaths, which were all Measles and Whooping Cough, with the exception of one due to Diphtheria. Many of these deaths are from what may be termed preventible disease. Thus Atrophy with which is classed Debility and Marasmus is often brought about by improper

feeding or from some antenatal cause which should not have existed. Early and improvident marriages are too often the cause of debility in the offspring. The second class, comprising Diarrhœal diseases, causes fearful decimation, especially in the poorer districts. Here again improper feeding is largely responsible; it is not intentional, but from absence of knowledge. I am speaking of what I have seen after 12 years' experience as a Medical Officer under the Poor Law. Much of the Bronchitis which exists is due to improper exposure, and in not attending to the "common cold" which infants so often have. Pneumonia is due to a micro-organism which sets up that disease in infants of low vitality. Convulsions are only symptomatic of some other trouble, gastric, intestinal, brain, etc., and tubercular disease is very often induced by the food and the conditions under which the infant lives.

#### COMMENTS ON THE WORK OF THE LADY HEALTH VISITOR.

The work of this Official largely consists in trying to prevent Infantile Mortality, by the dissemination of the laws of health in the homes where it is most needed. As one result of the Visitor's enquiries it was found that nearly all the infantile deaths occurred in small houses occupied by artisans and labourers. She has been well received, and in many instances has been asked to repeat her visits and to extend them to others. One important item of her work is the advice given to prevent the spread of Consumption in the home and elsewhere. She visits these patients and instructs them and their friends how to disinfect the sputum, pointing out the danger of allowing it to dry, when it would be carried by the air and inhaled by others. By means of this education much good can be done, indeed it is one of the first steps to be taken in order to stamp out the disease. Destruction of expectoration, ventilation by means of the open window, and the application of the laws of general domestic and personal hygiene would go a long way towards preventing Consumption altogether. There are many popular delusions which make it uphill work for the Health Visitor. It is believed, for instance, that in summer Diarrhœa is due to dentition, in winter that Bronchitis is also due to this condition.



One of the worst practices, however, is the feeding of children on rusks, arrowroot, bread boiley, and other starchy foods before the salivary secretion is properly formed, that is before the 9th month. The result of this is, that the starchy material which should have been converted into glucose or grape sugar is not so converted, because the active principle of the saliva is not present much before the 9th month, and therefore, food passes into the stomach unchanged and sets up fermentation and subsequent gastro-enteritis with Diarrhoea.

Various brands of condensed milk are used as food for infants: these as a rule are not germ-free as was formerly believed; the label also gives no idea of the proportions of condensed milk and water which should be used, and there is too much Saccharine matter in it. After the tin is opened it is often allowed to stand uncovered, frequently in an atmosphere which is an ideal one for favouring the further growth of the germs it contains. Cow's milk is another article of diet, indeed a staple one, which I may appropriately mention under this head. Under the usual conditions of milking it is by no means free from micro-organisms: one cubic centimetre (17 drops) is said to contain from four thousand to four million Bacteria. (See "The Milk Supply of large Towns," page 5, reprinted from the "British Medical Journal," March—May, 1903. Price, 6d., and obtainable from the Office of that Journal.)

As milk frequently contains Bacteria, some species of which are believed on good grounds to cause Diarrhoea, it is not surprising that this disorder is so prevalent in hot weather, for a high temperature causes the Bacteria to multiply at a very rapid rate. The Health Visitor not only gives advice on the feeding of infants but impresses on the mother the necessity for care in regard to her own health. In many cases she has been instrumental in persuading people to remove into a brighter and more airy room. The necessity for proper ventilation and the beneficial effects of sunlight are pointed out. Advice is also given, when necessary, as to clothing and general cleanliness. I would again emphasise the necessity there is for the teaching of Elementary Hygiene to the elder girls in our Schools. If this could be done these future mothers would at least start fair—at present they are handicapped by the traditions of a bye-gone age. The work of Health Visitors is no doubt excellent, but it is trying to stem the stream while we are doing nothing with the fountain.



**PUERPERAL FEVER.**—These cases are visited and the cause investigated as far as possible. The Midwife, at the conclusion of the case, has her clothing, bag, instruments, etc., disinfected at the Sanatorium.

**ADDRESSES AT MOTHERS' MEETINGS.**—On ten occasions the Visitor has been requested to give addresses at Mothers' Meetings and Guilds on subjects of interest to the mothers in relation to their children. She has been well received, and I have no doubt such plain talks will do good. Cards have been printed, giving instruction on feeding, and the amount of food required at different ages; these have been asked for by several ladies connected with various organisations for women, and have been distributed by them in the homes of the latter. They are also distributed by the Health Visitor, who, when she again visits a home, usually finds the card hanging up, and, if necessary, she can explain anything on it that may not have been quite understood. In some towns a Public Health Society exists, the object of which is to disseminate knowledge on matters relating to health. These Societies help to form public opinion and aid the work of the Health Department. I know there are ladies and gentlemen in Sunderland who take a very great interest in Sanitary work, and I do not think such a Society here would be anything but beneficial to the town.

The Health Visitor has visited every house where infantile deaths have occurred in the poorer parts of the Borough.

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| The number of premises inspected after infantile deaths was .....        | 524  |
| Visits to premises where children suffered from Infectious Disease ..... | 656  |
| Cases of Puerperal Fever investigated ... ..                             | 10   |
| Number of visits to Consumptive cases .....                              | 139  |
| Addresses at Mothers' Meetings .....                                     | 10   |
| Number of re-visits .....                                                | 1252 |
| Visits to houses where children have been born...                        | 1227 |
| Visits to houses where children have died under 1 year .....             | 524  |
| Visits to Midwives under the Midwives' Act, 1902                         | 182  |
| Visits to children over 1 year of age.....                               | 98   |
| <hr/>                                                                    |      |
| Total number of visits.....                                              | 4622 |

EARLIER REGISTRATION OF BIRTHS.

It is very important that the Health Department should be informed of the birth of infants as early as possible. At present a period of six weeks is allowed in which to register births, with the result that in the majority of cases the Health Visitor has no knowledge of births until the infants are 7 weeks old, when a good many of the children born are dead. It would greatly facilitate the prevention of Infantile deaths if births were registered earlier, for the Visitor would then be able to visit the children before improper methods of feeding had been adopted.

FEEDING AND CONDITION OF INFANTS.

Of the 1,227 infants visited, the result of enquiries on the method of feeding and the condition of the children was as follows :—

| Method of Feeding.                     | Well Nourished. | Fairly Nourished. | Badly Nourished. |
|----------------------------------------|-----------------|-------------------|------------------|
| Nursed ..... 859                       | 741             | 78                | 40               |
| Artificially Fed..... 368              | 76              | 156               | 136              |
| Total .....1227                        | 817             | 234               | 176              |
| Percentage Artificially Fed ..... 29·9 | 9               | 66                | 77               |

FATALITY OF DIARRHŒA IN REGARD TO THE  
NUMBER OF ROOMS.

In the one-roomed tenements the diarrhœa fatality was 0·7 per cent.  
,, two ,, ,, ,, ,, 0·5 ,,  
,, three ,, ,, ,, ,, 0·2 ,,  
,, four ,, ,, ,, ,, 0·1 ,,

REPORT AS TO MIDWIVES.

There are 36 Midwives registered in Sunderland under the Midwives' Act of 1902. Out of this number 3 only have had Hospital Training; they hold the Licence of the Obstetrical Society and the Certificate of the Central Midwives' Board; they are not in actual practice.

One Midwife has given up practice, so that there are at present only 32 certified women who are practising in the Borough.

Eighteen of these are not educated, and some are quite illiterate, making it impossible for them to keep a register of cases. Information required concerning the case has to be recorded by some member of their family.

Several are in poor circumstances, doing but little Midwifery. The majority have to do their own housework. Nine have bags with washable linings, and the rest have bags with pockets made of washable material. The bags contain clean linen, ligatures, nail brush, carbolised vaseline, carbolic soap, a disinfectant (Creolin, Jeye's Fluid or Condy's Fluid) and scissors. Hardly any other instruments are used. Five understand the use of a thermometer, and four use an enema syringe occasionally.

Dresses and bodices of washable material are worn by all the women.

The majority of them are clean and tidy in their person and surroundings.

As far as can be ascertained their mode of practice is satisfactory.

Four cases of Puerperal Fever have been notified where a Registered Midwife was in attendance, but no blame could be attributed to the Midwife.

The following is the Report of Work performed by the Inspector of Drains and Sanitary fittings of new houses, during the year:—

|                                                                                               |                          |   |     |
|-----------------------------------------------------------------------------------------------|--------------------------|---|-----|
| Number of visits made .....                                                                   | 3744                     |   |     |
|                                                                                               | Water. Chemicals. Smoke. |   |     |
| Number of drains tested.....                                                                  | 3089                     | 6 | 167 |
| Number of tests applied .....                                                                 | 3168                     | 6 | 198 |
| Number of certificates sent to the Borough<br>Surveyor .....                                  | 310                      |   |     |
| Number of cases where it was found necessary to<br>order concrete foundations for drains..... | 830                      |   |     |
| Approximate length of drains laid.....                                                        | 26,786 feet.             |   |     |



## CONCLUSION.

I desire to express my thanks to the Chairman and Members of the Health Committee, and to the other Members of the Council, for their unfailing courtesy and assistance in my work.

I wish to acknowledge also the assistance I have at all times received from my fellow Officials in the other Corporation Departments; also for information received from many Medical Officers of Health I tender my sincere thanks.

I am likewise indebted to the Chief Constable, the Clerk to the Guardians, and the Vaccination Officers for information and helpful co-operation. Finally, I desire to acknowledge the loyal support and assistance which I have at all times received from each Member of my Staff, without which the work of the Health Department could not have been efficiently carried out.

TABLE A.

The population of the Borough of Sunderland, at the middle of 1905, amounted to 152,659 persons. The distribution of this population among the three Registration Sub-Districts, is shown in the following Table:—

|                      | Population. | Area in Acres. | Density of Population per Acre. |
|----------------------|-------------|----------------|---------------------------------|
| Sunderland East..... | 56,463      | 965            | 58·5                            |
| „ West .....         | 62,737      | 1,702          | 36·6                            |
| „ North .....        | 33,459      | 729            | 45·9                            |
| Borough .....        | 152,659     | 3,396          | 44·9                            |

The following Table shows the age and sex distribution (estimated to the middle of the year):—

TABLE B.

| At Ages.       | Persons. | Males. | Females. |
|----------------|----------|--------|----------|
| Under 1 year   | 4493     | 2227   | 2266     |
| 1 to 5 years   | 15047    | 7579   | 7468     |
| 5 " 10 "       | 16716    | 8351   | 8365     |
| 10 " 15 "      | 16168    | 8133   | 8033     |
| 15 " 20 "      | 16161    | 7820   | 8341     |
| 20 " 25 "      | 15258    | 7116   | 8142     |
| 25 " 30 "      | 13601    | 6556   | 7045     |
| 30 " 35 "      | 10823    | 5277   | 5546     |
| 35 " 40 "      | 9683     | 4787   | 4896     |
| 40 " 45 "      | 7803     | 3711   | 4092     |
| 45 " 50 "      | 7194     | 3601   | 3593     |
| 50 " 55 "      | 5841     | 3015   | 2826     |
| 55 " 60 "      | 4647     | 2444   | 2203     |
| 60 " 65 "      | 3609     | 1744   | 1865     |
| 65 " 70 "      | 2440     | 1132   | 1308     |
| 70 " 75 "      | 1702     | 780    | 922      |
| 75 " 80 "      | 874      | 398    | 476      |
| 80 " 85 "      | 473      | 154    | 319      |
| 85 and upwards | 126      | 43     | 83       |
| Totals .....   | 152659   | 74870  | 77789    |

The Census population was 146,077; 71,533 being males and 74,494 females. The Census populations of the various Wards were as follows:—

|                       |        |                        |        |
|-----------------------|--------|------------------------|--------|
| Bishopwearmouth ..... | 9,964  | Monkwearmouth-Shore... | 10,709 |
| Bridge .....          | 12,944 | Pallion .....          | 8,560  |
| Central .....         | 9,433  | Park .....             | 9,643  |
| Colliery .....        | 8,179  | Roker .....            | 6,975  |
| Deptford .....        | 10,501 | St. Michael's .....    | 8,098  |
| East .....            | 9,524  | Sunderland .....       | 9,829  |
| Hendon .....          | 5,750  | Thornhill .....        | 9,230  |
| Monkwearmouth .....   | 5,869  | West .....             | 10,869 |

The number of Marriages registered in the Registration District of Sunderland (which, in addition to the Municipal Area, includes the Townships of Ford, Tunstall, Ryhope, Fulwell, Southwick, and Hylton) during each of the past ten years is as under:—

| Year.      | No. of Marriages. | Year.      | No. of Marriages. |
|------------|-------------------|------------|-------------------|
| 1896 ..... | 1,519             | 1901 ..... | 1,625             |
| 1897 ..... | 1,590             | 1902 ..... | 1,559             |
| 1898 ..... | 1,754             | 1903 ..... | 1,457             |
| 1899 ..... | 1,630             | 1904 ..... | 1,545             |
| 1900 ..... | 1,623             | 1905 ..... | 1,572             |

The Births registered during the year 1905 numbered 5,223, the Birth-rate being 34·2 per 1,000.

The Birth-rates during the 1st, 2nd, 3rd, and 4th quarters were 34·6, 34·2, 35·3, and 32·6 respectively.

The Birth-rate in the 76 large towns of England and Wales was 28·2 per 1,000 of the population.

TABLE C.

Showing the number of Births of Males and Females, together with the Birth-rates, for the 10 years, 1896 to 1905 :—

| Year. | Births. |      |        | Birth Rate. |
|-------|---------|------|--------|-------------|
|       | M.      | F.   | Total. |             |
| 1896  | 2496    | 2377 | 4873   | 35·4        |
| 1897  | 2519    | 2386 | 4905   | 34·9        |
| 1898  | 2562    | 2515 | 5077   | 35·8        |
| 1899  | 2677    | 2507 | 5184   | 36·1        |
| 1900  | 2720    | 2536 | 5256   | 36·3        |
| 1901  | 2588    | 2691 | 5279   | 36·0        |
| 1902  | 2742    | 2649 | 5391   | 35·7        |
| 1903  | 2598    | 2597 | 5195   | 34·5        |
| 1904  | 2654    | 2540 | 5194   | 34·3        |
| 1905  | 2615    | 2608 | 5223   | 34·2        |

#### DEATHS.

The Deaths registered during the year (including the Deaths in the Borough Asylum) numbered 2,853. The Death-rate per 1,000 is therefore 18·6.

The Death-rates in the quarters during 1905 were as follows :—

1st quarter—Deaths, 746...Rate, 19·5 per 1,000.

2nd „ „ 715 „ 18·7 „

3rd „ „ 712 „ 18·7 „

4th „ „ 680 „ 18·1 „

The Death-rates in the Registration Sub-Districts of the Borough were as follows :—

Sunderland East ..... 23·2 per 1,000.

Sunderland West ..... 15·9 „

Sunderland North ..... 19·2 „

Table D, on the next page shows the Death-rates for 76 Great Towns, as far as the returns are available.



TABLE D.

| TOWNS.            | Death Rates<br>per 1000<br>from all<br>causes. | Death Rate<br>per 1000 from |                   | Diarrhoea<br>Mortality<br>per 1000<br>Births. | Infant<br>Mortality<br>per 1000<br>Births. |
|-------------------|------------------------------------------------|-----------------------------|-------------------|-----------------------------------------------|--------------------------------------------|
|                   |                                                | Diph-<br>theria             | Enteric<br>Fever. |                                               |                                            |
| London .....      | 15.6                                           | 0.12                        | 0.05              | 26.9                                          | 131                                        |
| Croyden .....     | 12.5                                           | 0.16                        | 0.03              | 13.4                                          | 95                                         |
| Willesden .....   | 11.6                                           | 0.11                        | 0.07              | 21.3                                          | 112                                        |
| Hornsey .....     | 7.6                                            | 0.08                        | 0.02              | 5.1                                           | 66                                         |
| Tottenham .....   | 12.8                                           | 0.16                        | 0.05              | 13.9                                          | 115                                        |
| West Ham .....    | 14.8                                           | 0.26                        | 0.10              | 51.8                                          | 153                                        |
| East Ham .....    | 11.7                                           | 0.30                        | 0.14              | 26.6                                          | 124                                        |
| Leyton.....       | 10.3                                           | 0.13                        | 0.09              | 19.0                                          | 94                                         |
| Walthamstow.....  | 10.8                                           | 0.24                        | 0.07              | 25.0                                          | 106                                        |
| Hastings .....    | 12.8                                           | 0.03                        | 0.03              | 9.3                                           | 113                                        |
| Brighton .....    | 13.5                                           | 0.04                        | 0.02              | 16.1                                          | 101                                        |
| Portsmouth.....   | 16.6                                           | 0.34                        | 0.09              | 30.5                                          | 133                                        |
| Southampton ..... | 14.4                                           | 0.23                        | 0.09              | 24.7                                          | 132                                        |
| Bournemouth ..... | 12.3                                           | 0.24                        | 0.02              | 8.2                                           | 83                                         |
| Reading ... ..    | 13.4                                           | 0.23                        | 0.03              | 12.5                                          | 121                                        |
| Northampton ..... | 12.6                                           | 0.15                        | 0.01              | 21.7                                          | 126                                        |
| Ipswich .....     | 14.6                                           | 0.16                        | 0.10              | 17.4                                          | 144                                        |
| Great Yarmouth..  | 15.8                                           | 0.04                        | 0.11              | 22.3                                          | 132                                        |
| Norwich .....     | 16.3                                           | 0.20                        | 0.07              | 43.0                                          | 174                                        |
| Plymouth .....    | 16.8                                           | 0.15                        | 0.07              | 31.0                                          | 135                                        |
| Devonport .....   | 13.9                                           | 0.09                        | 0.17              | 12.1                                          | 113                                        |
| Bristol .....     | 14.6                                           | 0.16                        | 0.03              | 13.4                                          | 122                                        |
| Hanley .....      | 19.3                                           | 0.33                        | 0.06              | 32.3                                          | 195                                        |
| Burton.....       | 11.5                                           | 0.13                        | 0.04              | 11.3                                          | 87                                         |
| Wolverhampton..   | 15.0                                           | 0.18                        | 0.09              | 44.5                                          | 137                                        |
| Walsall .....     | 14.1                                           | 0.13                        | 0.06              | 40.0                                          | 141                                        |
| Handsworth .....  | 10.1                                           | 0.06                        | 0.03              | 13.4                                          | 80                                         |
| West Bromwich...  | 16.7                                           | 0.10                        | 0.18              | 22.8                                          | 146                                        |
| Birmingham .....  | 16.2                                           | 0.17                        | 0.07              | 29.3                                          | 154                                        |
| King's Norton ... | 9.1                                            | 0.09                        | 0.01              | 6.1                                           | 89                                         |
| Smethwick ... ..  | 13.3                                           | 0.02                        | 0.10              | 13.6                                          | 137                                        |
| Aston Manor ..... | 13.1                                           | 0.09                        | 0.04              | 42.7                                          | 145                                        |
| Coventry .. ..    | 14.6                                           | 0.16                        | 0.09              | 15.8                                          | 108                                        |
| Leicester .....   | 13.3                                           | 0.05                        | 0.04              | 35.4                                          | 148                                        |
| Grimsby .....     | 14.8                                           | 0.21                        | 0.16              | 61.0                                          | 174                                        |
| Nottingham .....  | 16.5                                           | 0.19                        | 0.09              | 28.3                                          | 155                                        |
| Derby .....       | 14.6                                           | 0.19                        | 0.07              | 24.0                                          | 151                                        |
| Stockport .....   | 16.7                                           | 0.07                        | 0.10              | 47.9                                          | 168                                        |
| Birkenhead .....  | 15.4                                           | 0.28                        | 0.05              | 31.5                                          | 127                                        |
| Wallasey .....    | 12.5                                           | 0.16                        | 0.14              | 23.5                                          | 98                                         |
| Liverpool.....    | 19.6                                           | 0.21                        | 0.10              | 40.6                                          | 153                                        |
| Bootle .....      | 18.2                                           | 0.29                        | 0.08              | 45.8                                          | 155                                        |
| St. Helens .....  | 17.1                                           | 0.21                        | 0.02              | 26.2                                          | 134                                        |

TABLE D.—Continued.

| TOWNS.                      | Death Rates<br>per 1000<br>from all<br>causes. | Death Rate<br>per 1000 from |                   | Diarrhoea<br>Mortality<br>per 1000<br>Births. | Infant<br>Mortality<br>per 1000<br>Births. |
|-----------------------------|------------------------------------------------|-----------------------------|-------------------|-----------------------------------------------|--------------------------------------------|
|                             |                                                | Diph-<br>theria.            | Enteric<br>Fever. |                                               |                                            |
| Wigan .....                 | 18·6                                           | 0·08                        | 0·41              | 47·0                                          | 164                                        |
| Warrington .....            | 17·0                                           | 0·09                        | 0·06              | 35·5                                          | 147                                        |
| Bolton .....                | 15·1                                           | 0·10                        | 0·19              | 40·3                                          | 167                                        |
| Bury .....                  | 16·3                                           | 0·07                        | 0·19              | 36·1                                          | 147                                        |
| Manchester .....            | 18·0                                           | 0·20                        | 0·09              | 38·9                                          | 157                                        |
| Salford .....               | 16·9                                           | 0·36                        | 0·19              | 38·9                                          | 148                                        |
| Oldham .....                | 18·0                                           | 0·09                        | 0·08              | 29·3                                          | 150                                        |
| Rochdale .....              | 16·7                                           | 0·30                        | 0·05              | 21·3                                          | 133                                        |
| Burnley .....               | 16·6                                           | 0·19                        | 0·13              | 52·1                                          | 173                                        |
| Blackburn .....             | 16·2                                           | 0·24                        | 0·11              | 26·6                                          | 146                                        |
| Preston .....               | 17·9                                           | 0·16                        | 0·16              | 46·5                                          | 154                                        |
| Barrow-in-<br>Furness ..... | 14·6                                           | 0·15                        | 0·03              | 10·9                                          | 135                                        |
| Huddersfield .....          | 17·0                                           | 0·12                        | 0·19              | 20·0                                          | 119                                        |
| Halifax .....               | 14·6                                           | 0·26                        | 0·06              | 13·0                                          | 131                                        |
| Bradford .....              | 15·2                                           | 0·28                        | 0·08              | 24·6                                          | 144                                        |
| Leeds .....                 | 15·2                                           | 0·10                        | 0·12              | 29·6                                          | 151                                        |
| Sheffield .....             | 17·0                                           | 0·13                        | 0·10              | 52·0                                          | 167                                        |
| Rotherham .....             | 13·7                                           | 0·13                        | 0·03              | 17·3                                          | 123                                        |
| York .....                  | 14·2                                           | 0·10                        | 0·10              | 31·5                                          | 129                                        |
| Hull .....                  | 16·3                                           | 0·30                        | 0·10              | 44·0                                          | 152                                        |
| Middlesbrough ...           | 21·0                                           | 0·39                        | 0·23              | 30·9                                          | 173                                        |
| Stockton-on-Tees.           | 17·8                                           | 0·27                        | 0·11              | 15·1                                          | 150                                        |
| West Hartlepool...          | 15·8                                           | 0·38                        | 0·10              | 11·0                                          | 146                                        |
| Sunderland .....            | 18·6                                           | 0·19                        | 0·20              | 15·9                                          | 143                                        |
| South Shields.....          | 16·1                                           | 0·22                        | 0·21              | 15·1                                          | 146                                        |
| Gateshead .....             | 15·5                                           | 0·16                        | 0·03              | 20·8                                          | 138                                        |
| Newcastle-on<br>Tyne .....  | 16·8                                           | 0·19                        | 0·04              | 18·1                                          | 135                                        |
| Tynemouth .....             | 19·3                                           | 0·11                        | 0·04              | 15·2                                          | 153                                        |
| Newport (Mon.)...           | 15·8                                           | 0·17                        | 0·04              | 17·5                                          | 125                                        |
| Cardiff .....               | 13·4                                           | 0·13                        | 0·04              | 11·0                                          | 118                                        |
| Rhondda .....               | 19·1                                           | 0·13                        | 0·13              | 36·9                                          | 200                                        |
| Merthyr Tydfil ...          | 22·1                                           | 0·29                        | 0·19              | 34·7                                          | 193                                        |
| Swausea .....               | 16·7                                           | 0·20                        | 0·05              | 14·3                                          | 131                                        |

TABLE E.

DEATHS in the four quarters of 1905, compared with those in the four quarters of 1904, from divers causes.

| DISEASES.           | 1905.        |              |              |              | 1904.        |              |              |              | 1905                  | 1904                  |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------------|-----------------------|
|                     | 1st Quarter. | 2nd Quarter. | 3rd Quarter. | 4th Quarter. | 1st Quarter. | 2nd Quarter. | 3rd Quarter. | 4th Quarter. | Total.<br>(52 Weeks.) | Total.<br>(52 Weeks.) |
| Smallpox .....      | ...          | ...          | ...          | ...          | 2            | ...          | ...          | ...          | ...                   | 2                     |
| Measles .....       | 2            | 57           | 37           | 6            | 29           | 18           | 8            | 4            | 102                   | 59                    |
| Scarlet Fever ..... | ...          | ...          | ...          | 1            | ...          | 1            | 1            | 1            | 1                     | 3                     |
| Diphtheria .....    | 11           | 5            | 8            | 6            | 8            | 7            | 5            | 7            | 30                    | 27                    |
| Whooping Cough ..   | 26           | 20           | 9            | 3            | 11           | 20           | 16           | 17           | 58                    | 64                    |
| Enteric Fever.....  | 6            | 7            | 8            | 10           | 9            | 8            | 4            | 12           | 31                    | 33                    |
| Diarrhoea .....     | 3            | 8            | 96           | 15           | 3            | 6            | 131          | 23           | 122                   | 163                   |
| Syphilis .....      | 1            | 3            | 2            | 1            | 3            | 2            | 3            | 3            | 7                     | 11                    |
| Puerperal Fever...  | 4            | 1            | ...          | 2            | ...          | 1            | ...          | 1            | 7                     | 2                     |
| Alcoholism .....    | 1            | 1            | ...          | 1            | ...          | 1            | ...          | ...          | 3                     | 1                     |
| Rheumatic Fever..   | 3            | 2            | 1            | 1            | 1            | 3            | 3            | 5            | 7                     | 12                    |
| Cancer .....        | 26           | 30           | 30           | 34           | 37           | 29           | 34           | 35           | 120                   | 135                   |
| Tabes Mesenterica   | 9            | 16           | 15           | 9            | 12           | 13           | 13           | 13           | 49                    | 51                    |
| Tubercular          |              |              |              |              |              |              |              |              |                       |                       |
| Meningitis .....    | 10           | 12           | 14           | 16           | 9            | 12           | 8            | 13           | 52                    | 42                    |
| Phthisis .....      | 56           | 59           | 49           | 47           | 47           | 58           | 50           | 53           | 211                   | 208                   |
| Other Tubercular    |              |              |              |              |              |              |              |              |                       |                       |
| Diseases .....      | 15           | 9            | 8            | 15           | 11           | 14           | 8            | 8            | 47                    | 41                    |
| Premature Birth..   | 26           | 24           | 14           | 24           | 26           | 27           | 16           | 40           | 88                    | 109                   |
| Old Age .....       | 45           | 23           | 35           | 39           | 37           | 44           | 26           | 33           | 142                   | 140                   |
| Diseases of the     |              |              |              |              |              |              |              |              |                       |                       |
| Nervous System      | 86           | 84           | 78           | 84           | 95           | 76           | 79           | 86           | 332                   | 336                   |
| Diseases of the     |              |              |              |              |              |              |              |              |                       |                       |
| Heart .....         | 65           | 54           | 39           | 60           | 76           | 63           | 41           | 58           | 218                   | 233                   |
| Bronchitis .....    | 99           | 73           | 45           | 88           | 88           | 72           | 29           | 121          | 305                   | 310                   |
| Pneumonia and       |              |              |              |              |              |              |              |              |                       |                       |
| Pleuro Pneumonia    | 54           | 48           | 31           | 34           | 50           | 41           | 22           | 49           | 167                   | 162                   |
| Broncho             |              |              |              |              |              |              |              |              |                       |                       |
| Pneumonia .....     | 32           | 34           | 11           | 23           | 22           | 19           | 13           | 44           | 100                   | 98                    |
| Diseases of the     |              |              |              |              |              |              |              |              |                       |                       |
| Digestive System    | 20           | 30           | 42           | 31           | 25           | 33           | 57           | 28           | 133                   | 143                   |
| Inflammation of     |              |              |              |              |              |              |              |              |                       |                       |
| the Kidneys and     |              |              |              |              |              |              |              |              |                       |                       |
| Bright's Disease    | 22           | 10           | 25           | 18           | 26           | 9            | 10           | 18           | 75                    | 63                    |
| Accident .....      | 17           | 28           | 29           | 14           | 21           | 25           | 21           | 27           | 88                    | 94                    |
| Homicide.....       | 1            | ...          | ...          | ...          | ...          | 1            | 1            | 1            | 1                     | 3                     |
| Suicide .....       | 2            | 3            | 2            | 3            | 1            | 3            | 1            | 3            | 10                    | 8                     |



The Death-rate from the "principal Zymotic Diseases" was 2·31 per 1,000, as compared with 1·88 for the 76 Great Towns in 1905, and 2·40 for Sunderland in 1904.

Tables F. and G. show the cases notified, and the deaths for several years past.

TABLE F.

**Cases** of Infectious Diseases notified since 1896. (Compulsory Notification began in Sunderland in September, 1885).

| Year.   | Smallpox. | Scarlet<br>Fever. | Diphtheria. | Membranous<br>Croup. | Enteric<br>Fever. | Typhus<br>Fever. | Continued<br>Fever. | Erysipelas. |
|---------|-----------|-------------------|-------------|----------------------|-------------------|------------------|---------------------|-------------|
| 1896    | 1         | 605               | 26          | ...                  | 260               | ...              | 46                  | ...         |
| 1897    | 3         | 394               | 32          | ..                   | 203               | 1                | 29                  | ...         |
| 1898    | 5         | 726               | 26          | ...                  | 452               | 1                | 50                  | ...         |
| 1899    | 2         | 949               | 19          | ...                  | 297               | ...              | 48                  | ...         |
| 1900    | 2         | 754               | 33          | 17                   | 301               | ...              | 32                  | 62          |
| 1901    | ...       | 744               | 71          | 5                    | 244               | ...              | 22                  | 98          |
| 1902    | 9         | 814               | 56          | 7                    | 211               | ...              | 19                  | 111         |
| 1903    | 32        | 758               | 84          | 10                   | 121               | ...              | 14                  | 125         |
| 1904    | 34        | 198               | 72          | 2                    | 128               | ...              | 9                   | 117         |
| 1905    | 2         | 184               | 159         | 11                   | 139               | ...              | 6                   | 105         |
| Average | 9         | 612               | 58          | 8                    | 235               | ...              | 27                  | 103         |

TABLE G.

The annexed return shows the **deaths** from infectious diseases for 10 years (1896 to 1905):—

| Years. | Smallpox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping Cough. | Enteric Fever. | Typhus Fever. | Continued Fever. | Diarrhoea. |
|--------|-----------|----------|----------------|-------------|-----------------|----------------|---------------|------------------|------------|
| 1896   | ..        | 138      | 28             | 6           | 72              | 54             | ...           | ...              | 118        |
| 1897   | ...       | 62       | 11             | 5           | 76              | 36             | 1             | 2                | 182        |
| 1898   | 1         | 88       | 29             | 11          | 68              | 70             | ...           | ...              | 262        |
| 1899   | ...       | 42       | 40             | 9           | 57              | 51             | ...           | 6                | 175        |
| 1900   | ...       | 87       | 39             | 22          | 30              | 56             | ...           | ...              | 150        |
| 1901   | ...       | 64       | 45             | 29          | 104             | 43             | ...           | 2                | 254        |
| 1902   | 1         | 82       | 25             | 14          | 48              | 40             | ...           | ...              | 69         |
| 1903   | 2         | 121      | 36             | 31          | 48              | 22             | ...           | ...              | 93         |
| 1904   | 2         | 59       | 3              | 27          | 64              | 33             | ...           | ...              | 163        |
| 1905   | ...       | 102      | 1              | 30          | 58              | 31             | ...           | ...              | 122        |

TABLE H.  
Showing the cases of Infectious Diseases notified in each District in each Quarter, and the Deaths therefrom in 1905.

| DISEASES.                                                 | Sunderland East Sub-District. |     |     |     |         | Sunderland West Sub-District. |     |     |     |         | Sunderland North Sub-District. |     |     |     |         | Borough.  |     |     |     |         |
|-----------------------------------------------------------|-------------------------------|-----|-----|-----|---------|-------------------------------|-----|-----|-----|---------|--------------------------------|-----|-----|-----|---------|-----------|-----|-----|-----|---------|
|                                                           | Quarters.                     |     |     |     | Totals. | Quarters.                     |     |     |     | Totals. | Quarters.                      |     |     |     | Totals. | Quarters. |     |     |     | Totals. |
|                                                           | 1st                           | 2nd | 3rd | 4th |         | 1st                           | 2nd | 3rd | 4th |         | 1st                            | 2nd | 3rd | 4th |         | 1st       | 2nd | 3rd | 4th |         |
| Smallpox . . . . . { Cases ..<br>{ Deaths ..              | 1                             | 1   | ..  | ..  | 2       | ..                            | ..  | ..  | ..  | ..      | ..                             | ..  | ..  | ..  | ..      | 1         | 1   | ..  | ..  | 2       |
| Scarlet Fever . . . . { Cases ..<br>{ Deaths ..           | 13                            | 33  | 4   | 27  | 77      | 18                            | 18  | 14  | 21  | 71      | 11                             | 6   | 10  | 9   | 36      | 42        | 57  | 28  | 57  | 184     |
| Enteric Fever . . . . { Cases ..<br>{ Deaths ..           | 11                            | 6   | 15  | 14  | 46      | 8                             | 15  | 24  | 13  | 60      | 3                              | 3   | 17  | 10  | 33      | 22        | 24  | 56  | 37  | 189     |
| Typhus Fever . . . . { Cases ..<br>{ Deaths ..            | 4                             | 4   | 3   | 4   | 15      | 2                             | 2   | 3   | 4   | 11      | ..                             | 1   | 2   | 2   | 5       | 6         | 7   | 8   | 10  | 31      |
| Continued Fever . . { Cases ..<br>{ Deaths ..             | ..                            | ..  | ..  | ..  | ..      | ..                            | ..  | ..  | ..  | ..      | ..                             | ..  | ..  | ..  | ..      | ..        | ..  | ..  | ..  | ..      |
| Diphtheria and Mem. Croup . . . { Cases ..<br>{ Deaths .. | 5                             | 4   | 4   | 4   | 17      | 38                            | 18  | 29  | 27  | 112     | 12                             | 9   | 9   | 11  | 41      | 55        | 31  | 42  | 42  | 170     |
| Puerperal Fever. . { Cases ..<br>{ Deaths ..              | 1                             | 1   | ..  | ..  | 2       | 1                             | 1   | ..  | 2   | 4       | 2                              | 1   | 1   | ..  | 6       | 4         | 3   | 1   | 4   | 12      |
| Total . . . . . { Cases ..<br>{ Deaths ..                 | 31                            | 45  | 24  | 46  | 146     | 65                            | 52  | 67  | 63  | 247     | 28                             | 19  | 40  | 33  | 120     | 124       | 116 | 131 | 142 | 513     |
|                                                           | 6                             | 5   | 3   | 7   | 21      | 8                             | 5   | 11  | 7   | 31      | 7                              | 3   | 2   | 5   | 17      | 21        | 13  | 16  | 19  | 69      |



## THE BOROUGH SANATORIUM FOR INFECTIOUS DISEASES.

During the year 184 cases of Infectious Disease were admitted to the Sanatorium (including two sailors, removed from a ship in the Port). The following Table shows the admissions during the past ten years :—

TABLE I.

|                                      | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 |
|--------------------------------------|------|------|------|------|------|------|------|------|------|------|
| Smallpox .....                       | ...  | 4    | 6    | 2    | 2    | ...  | 10   | 32   | 34   | 2    |
| Measles .....                        | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Scarlet Fever.....                   | 213  | 104  | 188  | 257  | 226  | 183  | 210  | 193  | 94   | 87   |
| Diphtheria .....                     | 1    | 3    | 1    | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Typhus Fever.....                    | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Enteric and Con-<br>tinued Fever.... | 123  | 117  | 238  | 195  | 208  | 144  | 130  | 88   | 92   | 95   |
| Totals.....                          | 337  | 228  | 433  | 454  | 436  | 327  | 350  | 313  | 219  | 184  |

## ADMISSIONS TO THE SANATORIUM.

Table J., page 43, shows the number of cases of infectious disease which have been notified during the years 1904-5, the number admitted to the Sanatorium, and the percentage of notified cases which have been admitted. It is pleasing to find that the Sanatorium is being more appreciated year by year. In 1904, the number of patients suffering from Scarlet Fever treated at the Institution was 47 per cent. of the total number notified; in 1905 it was 47·3 per cent. We have not admitted so large a percentage of the notified cases since the Sanatorium was opened, the nearest approach being in 1896, when

35 per cent. were admitted. The Sanatorium is a great boon to a large number of households stricken with Scarlet Fever, for in very many cases (indeed, I might say, in nearly all), it is quite impossible to effect isolation at home, and were it not for the existence of the Sanatorium, the bread-winners of many of these homes would be prohibited from working, owing to the risk of spreading infection. As it is, when Scarlet Fever attacks a household and the patient is removed, after disinfection is carried out, the wage-earner can return to work, involving only perhaps the loss of one day's wages. The existence then, of such an Institution means a great saving of money as well as a means of preventing the spread of the disease.

Taking the number of Enteric and Continued Fevers together, I find that out of the total number notified, viz., 145, 64 per cent. were admitted to the Sanatorium. The percentage of the notified cases admitted has been rising steadily for the last ten years. Still, it ought to be higher, and it is a pity that more people do not avail themselves of the advantages to be gained by having these fevers nursed at their own Sanatorium instead of at home. The 93 cases of Enteric and Continued Fever admitted to the Sanatorium during the year, proved after observation, to be as follows:—

| Enteric Fever. | Tabes Mesenterica. | General Tuberculosis. | Broncho-pneumonia. | Compression of the brain, due to a fall. | Malignant growth of Sigmoid Flexure. | Colitis. | Total. |
|----------------|--------------------|-----------------------|--------------------|------------------------------------------|--------------------------------------|----------|--------|
| 87             | 1                  | 1                     | 1                  | 1                                        | 1                                    | 1        | 93     |

Of these 87 cases of Enteric Fever, 11 died, making a death-rate of 12·6 per cent. of the cases treated at the Sanatorium: while of 52 cases treated at home, 20 died, giving a death-rate of 38·4 per cent. for home-treated cases. It will thus be seen that the fatality of Enteric Fever patients treated at the Sanatorium is very much less than in the case of patients treated at home when suffering from that disease. These figures should need no further comment.

## ADMINISTRATIVE BLOCK AT THE BOROUGH SANATORIUM.

For some years the amount of sleeping accommodation in the Nurses' Home at the Sanatorium has been quite inadequate, and rooms which were needed for stores, etc., have had to be requisitioned for bedrooms. The Health Committee, therefore, decided to add a Wing, containing 17 bedrooms, with bathrooms and lavatories. This Wing has now been completed, and will be shortly opened for use.

TABLE J.

| DISEASE.              | 1904.           |                       |                                     | 1905.           |                       |                                     |
|-----------------------|-----------------|-----------------------|-------------------------------------|-----------------|-----------------------|-------------------------------------|
|                       | Cases Notified. | Admitted to Hospital. |                                     | Cases Notified. | Admitted to Hospital. |                                     |
|                       |                 | Number.               | Percentage of Total Cases Notified. |                 | Number.               | Percentage of Total Cases Notified. |
| Smallpox .....        | 34              | 34                    | 100                                 | 2               | 2                     | 100                                 |
| Enteric Fever .....   | 128             | 84                    | 66                                  | 139             | 92                    | 66                                  |
| Typhus Fever .....    | ...             | ...                   | ...                                 | ...             | ...                   | ...                                 |
| Continued Fever ..... | 9               | 7                     | 78                                  | 6               | 1                     | 6·2                                 |
| Scarlet Fever .....   | 198             | 94                    | 47                                  | 184             | 87                    | 7·3                                 |
| Diphtheria .....      | 72              | ...                   | ...                                 | 159             | ...                   | ...                                 |
| Memb. Croup .....     | 2               | ...                   | ...                                 | 11              | ...                   | ...                                 |
| TOTALS .....          | 443             | 219                   | 49·4                                | 501             | 182                   | 36·3                                |

The following figures show the death-rate in the Sanatorium for the past ten years:—

1896—Patients admitted, 337, of whom 24 died, or 7·1 per cent.

|       |   |   |      |   |    |   |   |      |   |
|-------|---|---|------|---|----|---|---|------|---|
| 1897— | “ | “ | 228, | “ | 18 | “ | “ | 7·9  | “ |
| 1898— | “ | “ | 433, | “ | 40 | “ | “ | 9·2  | “ |
| 1899— | “ | “ | 454, | “ | 36 | “ | “ | 7·9  | “ |
| 1900— | “ | “ | 436, | “ | 42 | “ | “ | 9·6  | “ |
| 1901— | “ | “ | 327, | “ | 35 | “ | “ | 10·7 | “ |
| 1902— | “ | “ | 350, | “ | 30 | “ | “ | 8·6  | “ |
| 1903— | “ | “ | 313, | “ | 27 | “ | “ | 8·6  | “ |
| 1904— | “ | “ | 219, | “ | 22 | “ | “ | 10·0 | “ |
| 1905— | “ | “ | 182, | “ | 13 | “ | “ | 7·1  | “ |



## CLEANSING DEPARTMENT.

At the end of the year there were in the Borough about 10,900 houses supplied by water-closets only, about 400 furnished with water-closets and privies and ashpits, and about 500 with water-closets and ash-closets. There were about 5,300 supplied by privies and ashpits, about 5,600 by ash-closets, and about 400 by pan-closets.

There is an increase in the number of inhabited houses, namely, 307.

The number of applications to have ashpits cleansed was 50, as compared with 123 for the previous year.

The last column in Table K. shows what great improvements has been effected in the last five years as compared with previous years.

Return showing the number of Ashpits Cleansed: also Inhabited Houses, etc., for Ten Years (1896-1905).

TABLE K.

| Year. | No. of Inhabited Houses. | No. of Ash-pits Cleansed. | No. of Loads of Refuse Removed from Ash-pits, Ash-closets and Bins. | Average No. of Horses Employed Daily. | Applications received at Office to empty Ash-pits. |
|-------|--------------------------|---------------------------|---------------------------------------------------------------------|---------------------------------------|----------------------------------------------------|
| 1896  | 19,721                   | 162,908                   | 75,129                                                              | 36                                    | 3,159                                              |
| 1897  | 19,991                   | 195,892                   | 74,553                                                              | 37½                                   | 1,841                                              |
| 1898  | 20,229                   | 228,279                   | 74,305                                                              | 38                                    | 1,029                                              |
| 1899  | 20,639                   | 229,343                   | 74,898                                                              | 40½                                   | 1,046                                              |
| 1900  | 21,078                   | 238,860                   | 78,350                                                              | 44½                                   | 1,130                                              |
| 1901  | 21,473                   | 241,577                   | 72,886                                                              | 44½                                   | 939                                                |
| 1902  | 22,110                   | 243,565                   | 72,584                                                              | 43½                                   | 426                                                |
| 1903  | 22,405                   | 245,671                   | 70,487                                                              | 43½                                   | 154                                                |
| 1904  | 22,798                   | 253,459                   | 68,036                                                              | 42½                                   | 123                                                |
| 1905  | 23,105                   | 290,469                   | 68,692                                                              | 42½                                   | 50                                                 |

13,565 loads of street sweepings, and 461 loads of snow also were removed during the year.

The number of tanks of water used for watering paved streets was 11,393.

During the twelve months 45,162 loads of refuse were sent to sea by hopper.

In addition to the loads of refuse referred to in the Table, 57,878 sacks of paper were collected and burnt.

During the year 940 ashpits were specially cleansed prior to their abolition.

# SALE OF FOOD AND DRUGS ACT, 1875.

Report of the Public Analyst appointed for the County Borough of Sunderland upon the articles analysed by him under the above Act.

## 1.—THE QUARTER ENDED 31st MARCH, 1905.

| Article submitted for Analysis. | State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority. | Result of Analysis :<br>Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration. | Observations. |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Milk .....                      | By an Officer acting under direction of the Town Council.                                                                                                                        | Genuine                                                                                                                                                  |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | 10·0 per cent. deficiency of milk fat.                                                                                                                   |               |
| Do. ....                        |                                                                                                                                                                                  | Genuine                                                                                                                                                  |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | 5·0 per cent. deficiency of milk fat.                                                                                                                    |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | 10·0 per cent. deficiency of fat and 6·3 per cent. non-fatty solids.                                                                                     |               |
| Do. ....                        |                                                                                                                                                                                  | Genuine                                                                                                                                                  |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | 3·3 per cent. deficiency of milk fat.                                                                                                                    |               |
| Do. ....                        |                                                                                                                                                                                  | 16·6 per cent. deficiency of milk fat.                                                                                                                   |               |
| Do. ....                        |                                                                                                                                                                                  | Genuine.                                                                                                                                                 |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |



## 1.—QUARTER ENDED MARCH 31st, 1904.

| Article submitted for Analysis. | State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority. | Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration. | Observations. |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Butter.....                     | By an Officer acting under direction of the Town Council.                                                                                                                        | Genuine.                                                                                                                                              |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                   |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                   |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                   |               |
| Do. ....                        |                                                                                                                                                                                  | Genuine, except that it contains 0·285 per cent. boracic acid.                                                                                        |               |
| Lard .....                      |                                                                                                                                                                                  | Genuine.                                                                                                                                              |               |
| Do. ....                        |                                                                                                                                                                                  | Do.                                                                                                                                                   |               |

|                                 |       |
|---------------------------------|-------|
| Genuine Samples .....           | 23    |
| Doubtfully Genuine Samples..... | 1     |
| Non-Genuine Samples .....       | 6     |
|                                 | <hr/> |
|                                 | 30    |
|                                 | <hr/> |

## 2.—QUARTER ENDED 30TH JUNE, 1905.

| Article submitted for Analysis. | State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority. | Result of Analysis :<br>Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration. | Observations. |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Cheese . . . . .                | By an Officer acting under direction of the Town Council.                                                                                                                        | Genuine.                                                                                                                                                 |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Butter . . . . .                |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | 100 per cent. of margarine, containing 0·19 per cent. boracic acid.                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Genuine.                                                                                                                                                 |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | 100 per cent. of margarine, containing 0·45 per cent. boracic acid.                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Genuine.                                                                                                                                                 |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | 100 per cent. of margarine, containing 0·25 per cent. boric acid.                                                                                        |               |
| Do. . . . .                     |                                                                                                                                                                                  | Genuine.                                                                                                                                                 |               |
| Do. . . . .                     |                                                                                                                                                                                  | 100 per cent. of margarine, containing 0·17 per cent. boracic acid.                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Genuine.                                                                                                                                                 |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Milk . . . . .                  |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Butter . . . . .                |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | 100 per cent. of margarine, containing 0·50 per cent. boracic acid.                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | Genuine.                                                                                                                                                 |               |
| Do. . . . .                     |                                                                                                                                                                                  | Do.                                                                                                                                                      |               |
| Do. . . . .                     |                                                                                                                                                                                  | 100 per cent. of margarine, containing 0·22 per cent. boracic acid.                                                                                      |               |

## 2.—QUARTER ENDED 30TH JUNE, 1905.

| Article submitted for Analysis. | State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and, if so, the name of such Authority. | Result of Analysis :<br>Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration. | Observations. |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Butter .....                    | By an Officer acting under direction of the Town Council.                                                                                                                         | Genuine.                                                                                                                                                 |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | 100 per cent of margarine, containing 0·30 per cent. boracic acid.                                                                                       |               |
| Do. ....                        |                                                                                                                                                                                   | Genuine.                                                                                                                                                 |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | Do.                                                                                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | 100 per cent. of margarine, containing 0·24 per cent. boracic acid.                                                                                      |               |
| Do. ....                        |                                                                                                                                                                                   | 100 per cent. of margarine, containing 0·21 per cent. boracic acid.                                                                                      |               |

Genuine Samples.....43

Non-genuine Samples..... 9



3.—QUARTER ENDED 30<sup>TH</sup> SEPTEMBER, 1905.

| Article submitted for Analysis. | State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority. | Result of Analysis :<br>Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration. | Observations. |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|

No articles were submitted for analysis during the quarter ended 30th September.

4.—QUARTER ENDED 31<sup>ST</sup> DECEMBER, 1905.

| Article submitted for Analysis. | State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority. | Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration. | Observations.                |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 20 Butter ...                   | By an Officer acting under direction of the Town Council.                                                                                                                        | Genuine.                                                                                                                                              | 7 of these taken informally. |
| 1 Do. ....                      |                                                                                                                                                                                  | Doubtful. Containing 0·58 per cent. boracic acid.                                                                                                     | Informal.                    |
| 1 Do. ....                      |                                                                                                                                                                                  | Doubtful. Containing 0·14 per cent. boracic acid.                                                                                                     |                              |
| 1 Do. ....                      |                                                                                                                                                                                  | Containing 100 per cent. of margarine and 0·24 per cent. boracic acid.                                                                                |                              |
| 2 Cheese. ...                   |                                                                                                                                                                                  | Genuine.                                                                                                                                              |                              |
| 1 Coffee .....                  |                                                                                                                                                                                  | Do.                                                                                                                                                   |                              |
| 1 Cocoa .....                   |                                                                                                                                                                                  | Do.                                                                                                                                                   |                              |
| 2 Pepper ...                    |                                                                                                                                                                                  | Do.                                                                                                                                                   |                              |
| 3 Lard .....                    |                                                                                                                                                                                  | Do.                                                                                                                                                   | 2 of these informal.         |
| 1 Yeast .....                   |                                                                                                                                                                                  | Do.                                                                                                                                                   | Informal.                    |
| 2 Ground Ginger.....            |                                                                                                                                                                                  | Do.                                                                                                                                                   | Do.                          |
| 1 Mustard ...                   |                                                                                                                                                                                  | Do.                                                                                                                                                   | Do.                          |
| 22 Milk .. ...                  |                                                                                                                                                                                  | Do.                                                                                                                                                   | 1 of these informal.         |
| 1 Do. ....                      |                                                                                                                                                                                  | 6·6 per cent. deficiency of fat                                                                                                                       |                              |
| 1 Do. ....                      |                                                                                                                                                                                  | 10·0   "       "                                                                                                                                      |                              |
| 1 Do. ....                      |                                                                                                                                                                                  | 8·3   "       "                                                                                                                                       |                              |
| 1 Do. ....                      |                                                                                                                                                                                  | 3·3   "       "                                                                                                                                       |                              |
| 1 Do. ....                      |                                                                                                                                                                                  | 8·3   "       "                                                                                                                                       |                              |
| 1 Do. ....                      |                                                                                                                                                                                  | 10·0   "       "                                                                                                                                      |                              |
| 1 Do. ....                      |                                                                                                                                                                                  | 6·6   "       "                                                                                                                                       |                              |

4.—QUARTER ENDED 31<sup>ST</sup> DECEMBER, 1905.—Contd.

| Article submitted for Analysis. | State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority. | Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration. | Observations |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 1 Milk .....                    | By an Officer acting under direction of the Town Council.                                                                                                                        | 16·6 per cent. deficiency of fat                                                                                                                      |              |
| 1 Do. ....                      |                                                                                                                                                                                  | 13·3        „                „                                                                                                                        |              |
| 3 Compound Liquorice Powder ... |                                                                                                                                                                                  | Genuine.                                                                                                                                              |              |
| 3 Gregory Powder ...            |                                                                                                                                                                                  | Do.                                                                                                                                                   |              |
| 3 Paregoric...                  |                                                                                                                                                                                  | Do.                                                                                                                                                   |              |
| 4 Glycerine...                  |                                                                                                                                                                                  | Do.                                                                                                                                                   |              |
| 2 Tincture of Rhubarb...        |                                                                                                                                                                                  | Do.                                                                                                                                                   |              |
| 2 Prepared Sulphur ...          |                                                                                                                                                                                  | Do.                                                                                                                                                   |              |

|                           |    |
|---------------------------|----|
| Genuine Samples .....     | 72 |
| Doubtful Samples.....     | 2  |
| Non-Genuine Samples ..... | 10 |
|                           | 84 |

## SUMMARY FOR THE YEAR.

|                                          |     |
|------------------------------------------|-----|
| Genuine Samples examined.....            | 138 |
| Doubtfully Genuine Samples examined..... | 3   |
| Non-Genuine Samples examined .....       | 25  |
|                                          | 166 |

JOHN PATTINSON,  
Public Analyst.



ANNUAL REPORT OF THE CHIEF SANITARY  
REPORT,  
1905.  
SANITARY INSPECTOR.

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HEALTH OFFICE,  
TOWN HALL, SUNDERLAND,  
APRIL, 1906.

TO THE CHAIRMAN AND MEMBERS OF THE  
HEALTH COMMITTEE.

GENTLEMEN,

I have the honour of submitting to you my Eleventh Annual Report, giving details of the work done by the Sanitary Inspectors' Staff during the year ending December 31st, 1905.

During the year regular inspections of the Borough Inspections. have been made to the number of 68,228; these include 4,304 visits to Workshops, 1,051 visits to Bakehouses, Dairies and Milkshops, 1,110. Slaughter-houses and Butchers' Shops, 2,773. Dwelling-houses, 14,663. Visits of Inspections re Infectious Diseases, 542. Tenemented House Inspections, 14,660. Common Lodging House Inspections, 1,013. Offensive Trades, 209.

Inspections for the Supervision of Works in progress re abatement of nuisances, 16,154. Consultations and advisory visits with Builders, etc., re work required to abate nuisances, etc., 2,422; and 5,956 visits or calls respecting complaints, or in quest of information, etc.

For details of Inspections see Table I.

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—  
Nuisances.

The nuisances discovered during such inspections have been dealt with in accordance with the provisions of the various Health Acts and Bye-Laws in force.

The nuisances discovered were of a varied nature, many were of such a character as to require no structural alterations to procure abatement; or to require the service of a notice; and, in many instances, verbal intimations to the persons responsible was sufficient to bring about the desired effect. (See Table II.)

Complaints.

286 Complaints were received at the Office as to the existence of nuisances. As in past years these are few as compared with the nuisances discovered and dealt with by the Inspectors.

For details see Table III.

Notices.

It was found necessary to issue 9,914 notices under the various Public Health Acts and Bye-Laws and the Factory and Workshops Act for the abatement of nuisances; of this number 7,556 were intimation or preliminary notices, and 1,855 Statutory notices, and 503 were under the Factory and Workshops Act.

It will be observed from Table II. that the principal nuisance arises from privy middens, 1,977 notices being served for this class of nuisance.

The abolition of the insanitary privy middens continues with steady progress, and during the past year 1,922 have been abolished and 1,924 water-closets substituted, and 1,964 ash receptacles provided.

I am pleased to record the willingness of many owners of properties to convert insanitary privy middens to water-closets without any formal notices being served. One owner, on being written to, having his attention drawn to the fact that certain back streets (on to which his property abutted) were about to be paved, at once gave instructions for water-closets being substituted, and this order included the conversion of 19 privy middens to water-closets. And in several instances owners have made

alterations of four and five such conveniences. During the past year 237 water-closets have thus been provided.

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For details see Table IV.

Amongst other work done in the abatement of nuisances were 442 dwelling houses, which underwent general repair, and 5 were provided with new spouts, and 3,173 were cleansed and lime-washed.

Structural  
work done.

The sanitary conveniences to dwelling houses, and fittings connected therewith (not including conversions of privy middens), which have been re-constructed or repaired, number 845, which include 519 new dustbins, whilst 2,554 house drains have been re-constructed, and 481 repaired.

The yard pavements repaired were 149, whilst 176 yard surfaces were covered with cement concrete. (See Table V.)

There were 83 cases of overcrowding dealt with, and in each instance the nuisance was abated on the service of notice conjointly upon the occupier and owner.

Overcrowd-  
ing.

For details see Tables IV. and V.

The clerical work during the past year has been extra heavy, as, in addition to reports, notices and ordinary routine Office Work, the following Correspondence, Circulars, etc., have been sent out:—

Correspon-  
dence.

940 Letters were written, 651 Circular Letters were sent out from the Office respecting Notices which had not been complied with.

Circular Letters notifying outbreak of Infectious Diseases in dwelling houses were sent out as follows:—

To the Infirmary, 93.

„ Laundries, 1,092.

„ Public Libraries, 364.

154 Circular Letters were sent to the Day Schools, and 109 Circulars to the Sunday Schools, giving the Head Teacher in each School a list of the cases of Infectious



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Disease amongst the children attending School, and requesting that children who were residing in houses where cases of Infectious Disease existed should not be allowed to attend School until the houses were declared free from Infection.

89 Books belonging to the Public and Circulating Libraries, which had been exposed to Infection in houses where cases of Infectious Disease existed, were taken possession of by the Inspectors and thoroughly disinfected before being passed on to the Libraries.

In cases of Smallpox all Books are destroyed.

**Drain  
Testing.**

There has been the usual amount of drain testing during the year, and as a result a very considerable number of drains have been re-constructed and repaired. All such being laid in accordance with the Bye-Laws, 3,619 feet of 4-inch and 795½ feet of 6-inch being so laid and tested by the Inspectors.

Applications were made by the occupiers of 88 dwelling houses to have the drains and sanitary fittings examined and tested, and more or less serious defects were found in the case of 45 tests. The drains and sanitary fittings were examined and tested in all cases where Enteric Fever or Diphtheria had been notified, or where the patient had been employed, and of 205 tests applied, 44 were found to be defective.

In connection with the above examinations 89 Reports were made, giving full details of the condition of the sanitary fittings, defects, etc., and a detailed Report of the work recommended to be carried out.

**Infectious  
Diseases and  
Contacts.**

There has not been during the year so many cases of Infectious Diseases, consequently there were less visits paid; 542 houses being visited, as against 884 last year.

Two cases only of Smallpox have been notified, and these were removed to the Sanatorium, as also 11 Contacts for the purpose of disinfection. These were kept under observation for the regulation period of three weeks, and fortunately no further cases were notified.

There were 178 patients removed to the Sanatorium for treatment there. 5,603 Articles of Wearing Apparel, etc., were disinfected by the Steam Disinfector at the Sanatorium. 54 Beds and Mattresses were burned at the request of the owners, or because they could not be disinfected, and 1,670 dwelling rooms were disinfected.

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For details of disinfecting work see Table VII.

There are 643 houses, comprising 3,964 tenements, now on the Register. These are regularly inspected, 14,660 visits having been made. It is very necessary for systematic visits of this class of property, as it is only by constant supervision that anything like cleanliness can be obtained.

Tenemented  
Houses.

It was found necessary to serve 43 Statutory Notices for overcrowding, all of which were complied with, and 1,318 Notices were served to cleanse and limewash. In 33 cases Statutory Notices were served for filthy rooms, and 35 Notices for choked drains.

27 Summonses were taken out for the fouling of sanitary conveniences, and in all cases fines were inflicted, viz. :—26 were fined 2s. 6d. and costs each, and one was fined 10s.

At the present there are 13 Cow-Byres on the Register, with accommodation for 209 Cows.

Dairies and  
Cowsheds.

There are at present 503 persons registered for the Sale of Milk under the Dairies, Cow-Sheds and Milkshops Order. During the year, 106 names have been added, and 108 struck off the Register. 1,214 visits have been made during the year.

There is, I think, a very weak point in the above Order, viz. :—That any person wishing to sell milk has only got to make application and be placed on the Register, no matter where the premises are situated or under what conditions the milk may be stored. True, we have a code of Bye-Laws, but these are in my opinion far from being as stringent as they should be with respect to the sale of such an article of consumption as Milk.

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In cases where an Infectious Disease had been notified from a Milkshop, etc., the Sale of Milk at these premises was immediately discontinued until the premises were thoroughly disinfected.

Common  
Lodging  
Houses.

There are 22 houses on the Register, providing lodging accommodation for 856 lodgers, as against 26 houses accommodating 901 lodgers last year. (See Table VIII.)

The Common Lodging-Houses have been regularly inspected, and found to be in a satisfactory condition, so far as cleanliness and management were concerned.

There are several undesirable premises (structurally) registered as Common Lodging-Houses, which, I think, it will be desirable to discontinue should an opportunity offer.

There were 3 applications for Transfers, in each case the property being old and unsuitable the applications were refused.

One Lodging-House was discontinued on the death of the keeper.

The accommodation of the houses, the licenses of which we refused to be transferred, and the house which was discontinued, provided for 57 lodgers.

One application was made for a new license, this house was intended for a Sailors' Boarding-House. The application was granted, but the house was discontinued in September.

One application was made for additional accommodation of 7 beds. This was granted.

Vans used as  
Dwellings.

These are daily inspected during their periodical visits, to ascertain that no Infectious Disease exists amongst the inmates. The condition of the vans was quite satisfactory, and generally very clean.



Frequent and regular inspections have been made of Butchers' Shops and Slaughter Houses; these were found to be in satisfactory condition so far as their general cleanliness was concerned. For the removal of the garbage and manure, properly constructed galvanized iron vessels with close fitting covers will be a great improvement on the class of vessels now in use.

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Slaughter  
Houses.

The Master Butchers' Association is, I understand, taking steps to meet the requirements of the Health Committee by providing proper vessels for this purpose, and many of the Butchers already have the requisite vessels.

The Offensive Trades in the Borough number 39, all of which have been regularly visited during the year. These establishments are generally conducted satisfactorily, very few complaints being received about them.

Offensive  
Trades.

In one instance it was found necessary to take out a Summons for permitting garbage and other filth to flow into the sewers, and a fine of £2 and costs was imposed.

It is very desirable that a Series of Bye-Laws should be drawn up and put in force with respect to these trades.

The quantity of Unsound Food dealt with was more than that of last year. (See Table X.) In one case it was found necessary to institute Police Court proceedings for exposing for sale certain unsound food, and also for having sold certain food which was not fit for food, and a penalty of £5 and costs was imposed.

Unsound  
Food.

The seizures include the whole carcase and all internal organs of 22 animals which were found to be affected with Tuberculosis, in addition the offal of 14 animals was condemned for the same reason. (See Table X.)

There are 202 Factories and 799 Workshops, the latter employing 1,583 males and 1,430 females. (See Tables XI. and XII.)

Factories and  
Workshops.

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The Inspector appointed under the above Act has made 8,117 Inspections, and 503 Notices have been served. (See Tables XIII. and XIV.)

It will be observed that 19 Notices were served to provide New Sanitary Conveniences for Workshops or Factories.

During the year 16 water-closets and 1 urinal have been provided for Workshops and Factories.

Shop Hours  
Act.

Frequent visits of inspection and enquiry are made, in order to enforce the requirements of this Act.

84 employers have forwarded to the Health Office lists bearing the names and addresses of 256 males and female outworkers.

The majority of these outworkers are engaged in the tailoring trade, the work being done at their own homes.

An inspection of these premises shows that the conditions under which they work, with regard to light, ventilation, and cleanliness, are fairly satisfactory.

In 45 Factories or Workshops an Abstract of the Factory and Workshop Act, 1901, as required by Section 128, was not displayed. These cases were reported to H.M. Inspector of Factories.

Bakehouses.

There are 156 Bakers and Confectioners on the Register, and these have been regularly visited, 1,040 inspections having been made, and every care is taken to ensure cleanliness.

Food and  
Drugs.

Under the Sale of Food and Drugs Act, 164 Samples were submitted to the Public Analyst. 139 of these were certified to be genuine, and 25 to be adulterated. (See Table XV.)

Under the Sale of Food and Drugs Act, 15 Summonses were issued, and fines were inflicted in 4 cases and 3 were dismissed.

There were 9 Summonses issued for the Sale of Milk which was below the standard fixed by the Board of Agriculture, varying from 3·3 per cent. to 16·6 per cent. deficient in milk fat, and in each instance the Magistrates dismissed the case.

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With respect to the 62 Samples of Milk purchased and submitted for analysis, 15 were certified to be adulterated, being 24 per cent., as against 17·7 per cent. of the samples purchased in 1904, and 11·8 per cent. of the samples purchased in 1903.

Evidently something more definite should be done by the Board of Agriculture with respect to the fixing of a standard for Milk. There is little doubt but that a uniform Milk can be obtained, and one which on the average would be well above the standard of 3·0 per cent. of milk fat, and 8·5 per cent. of solids other than milk fat if the Farmers would resort to the practice of equal periods of milking.

Of the 25 adulterated samples purchased, 10 were samples of butter. 4 of these were Informal samples, i.e., samples which were purchased by some person other than an Inspector with a view of ascertaining the practice of the particular trader in vending his goods; Formal samples being afterwards purchased, and as shewn by results this course was quite justified.

I consider that the sale of milk should be restricted to Confectioners' shops and properly-equipped Dairies. When we consider that the majority of registered milk-shops consist of small retail dealers who deal in all kinds of odds and ends, including coals, firewood, vegetables, kippers, and the like, many of which have living rooms communicating direct with the shop, it must be admitted that this class of premises are not troubled with over-cleanliness, and particles of dust are anything but scarce. In such shops the milk usually stands in a vessel on the counter, and, as a rule, this vessel remains uncovered



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until the Inspector calls and attention is drawn to this. The excuse, "we forgot to put the cover on," is usually made.

Under the circumstances it is easily conceivable how particles of dust laden with the germs of Consumption or other Infectious Disease may find their way into the milk, and be a source of spreading such diseases.

Summonses were taken out in 6 cases, and 4 convictions were obtained. One case was dismissed owing to the summons being taken out against the wrong party (the firm in the meantime being converted into a Limited Company), and in one case the defendant absconded before the summons could be served.

Magisterial  
Proceedings.

It was found necessary to report to the Health Committee that 214 persons had failed to comply with the Notices served upon them requiring the abatement of nuisances, and the Committee gave instructions for summonses to be issued. After communicating this fact to the persons responsible, 185 were complied with, without further action, but in the remaining 29 cases, summonses were issued.

For details see Table XVI.

Notices were sent to the Police, from time to time, of nuisances arising from offensive liquids leaking from ashpits on to the streets, and from filth being thrown on the street pavements and catchpits. Summonses were taken out, and the following cases were dealt with :—

For allowing offensive matter to flow from ashpits, 1 fined 5s. and costs.

For throwing filth on to street catchpit, 1 fined 1s.

It was found necessary to issue 74 Summonses for various offences under the Public Health Act.

In 8 cases Orders were made to abate nuisances in the terms of the Notices served.

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In 24 cases the Summonses were withdrawn on the nuisance being abated and on payment of costs.

Summonses were taken out against 32 occupiers, 27 of whom were convicted, with fines ranging from 10s. each to 2s. 6d. each, and 5 were withdrawn.

In conclusion, I have very great pleasure in recording the very hearty co-operation which I have received from each Member of the Health Office; and especially to Mr. J. S. Watson, Deputy-Inspector of Nuisances.

TABLE I.  
Showing Visits made by each Inspector.

| INSPECTIONS.                                                    | No. 1<br>District. | No. 2<br>District. | No. 3<br>District. | No. 4<br>District. | No. 5<br>District. | No. 6<br>District. | Workshops<br>Inspector. | East End<br>District. | Totals. |
|-----------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------------|-----------------------|---------|
| INSPECTIONS OF WORKSHOPS, &c. :—                                |                    |                    |                    |                    |                    |                    |                         |                       |         |
| Factories and Workshops .....                                   | 3                  | ...                | 11                 | ...                | ...                | ...                | 4080                    | ...                   | 4304    |
| Shop Hours Act : "Inquiries"...                                 | ...                | ...                | ...                | ...                | ...                | ...                | 394                     | ..                    | 394     |
| Out-Workers and Employers of<br>Out-Workers .....               | ...                | ...                | ...                | ...                | ...                | ...                | 597                     | ...                   | 597     |
| Bake Houses .....                                               | 3                  | ...                | ...                | ...                | ...                | ...                | 1048                    | ...                   | 1051    |
| Workplace .....                                                 | ...                | ...                | ...                | ...                | ...                | ...                | 128                     | ...                   | 128     |
| Cowsheds .....                                                  | ...                | 104                | ...                | ...                | ...                | ...                | ...                     | ...                   | 104     |
| Dairies and Milk Shops .....                                    | 57                 | ...                | 36                 | 173                | 164                | 44                 | 596                     | 40                    | 1110    |
| Slaughter Houses and Butchers'<br>Shops .....                   | 61                 | 2630               | 10                 | 27                 | ...                | 45                 | ...                     | ...                   | 2773    |
| Fish and Fruit Shops .....                                      | 28                 | 496                | 16                 | 38                 | ...                | 35                 | ...                     | ..                    | 613     |
| Appointments and Advisory Visits..                              | 285                | 569                | 81                 | 817                | 480                | 182                | ...                     | 8                     | 2422    |
| VISITS TO DWELLING HOUSES :—                                    |                    |                    |                    |                    |                    |                    |                         |                       |         |
| Dwelling Houses .....                                           | 2492               | 3062               | 550                | 2353               | 4986               | 925                | 3                       | 292                   | 14663   |
| Dwelling Houses, <i>re</i> Infectious<br>Diseases.....          | 108                | ...                | 37                 | 182                | 96                 | 70                 | 9                       | 40                    | 542     |
| Dwelling Houses, <i>re</i> Smallpox<br>Contacts .....           | 24                 | ...                | 8                  | 87                 | 29                 | 15                 | ...                     | 3                     | 166     |
| Tenemented Houses ... ..                                        | 365                | 1269               | ...                | 1232               | 1953               | 1346               | ...                     | 8495                  | 14660   |
| Common Lodging Houses .....                                     | 98                 | 806                | ...                | ...                | ...                | 23                 | ..                      | 86                    | 1013    |
| Inspections of Works in Progress,<br>Drains, W.C.'s, &c. ... .. | 2855               | 1569               | 2471               | 2368               | 2529               | 4157               | ...                     | 205                   | 16154   |
| Calls made, &c.....                                             | 2021               | 620                | 577                | ...                | 411                | 990                | ...                     | 1337                  | 5956    |
| Sale of Food and Drugs Acts.....                                | ...                | ...                | 25                 | 29                 | 47                 | 9                  | 149                     | 51                    | 310     |
| Restaurants, Kitchens .....                                     | ...                | ...                | ...                | ..                 | ...                | ...                | 75                      | ...                   | 75      |
| INSPECTIONS OF OFFENSIVE TRADES,<br>&c. :—                      |                    |                    |                    |                    |                    |                    |                         |                       |         |
| Tripe and Skin Preparers, &c. ...                               | 6                  | 127                | ...                | ...                | ...                | 2                  | 86                      | ..                    | 135     |
| Fried Fish Shops.....                                           | 11                 | ...                | ...                | ...                | 9                  | 5                  | ...                     | ...                   | 25      |
| Marine Stores .. ..                                             | 6                  | 30                 | ...                | ...                | 9                  | ...                | 89                      | 48                    | 93      |
| Stables, Mews, &c. ....                                         | 4                  | ...                | 8                  | ...                | ...                | 7                  | ...                     | ...                   | 19      |
| Fish Curers .....                                               | ...                | ...                | ...                | ...                | ...                | ...                | 11                      | ...                   | 11      |
| Chemical Paint Works .....                                      | ...                | ...                | ...                | ...                | ...                | ...                | 24                      | ...                   | 24      |
| Other Visits .....                                              | ...                | ...                | 1                  | 92                 | ...                | ...                | 828                     | ...                   | 921     |
| Total Inspections.....                                          | 8427               | 11282              | 3831               | 7398               | 10713              | 7855               | 8117                    | 10605                 | 68228   |



TABLE II.  
SUMMARY OF NOTICES for the Abatement of Nuisances  
served during 1904.

| Nature of Notice.                                                                        | Preliminary. |          | Statutory. |          | Work-shops Inspector | Totals |
|------------------------------------------------------------------------------------------|--------------|----------|------------|----------|----------------------|--------|
|                                                                                          | Owner.       | Occupier | Owner.     | Occupier |                      |        |
| To Cleanse Premises .. .. .                                                              | ...          | 60       | ...        | 33       | ...                  | 93     |
| "  "  after Infectious Disease .. .. .                                                   | ...          | 255      | ...        | 98       | ...                  | 353    |
| To Abate Nuisances arising from .. .. .                                                  |              |          |            |          |                      |        |
| "  Drains .. .. .                                                                        | 313          | 4        | 96         | 5        | ...                  | 418    |
| "  Water-Closets .. .. .                                                                 | 450          | 24       | 117        | 21       | ...                  | 612    |
| "  Privies and Ash-Pits .. .. .                                                          | 1258         | 4        | 715        | ...      | ...                  | 1977   |
| "  Yard Pavements .. .. .                                                                | 217          | ...      | 74         | 1        | ...                  | 292    |
| "  Dilapidated Houses .. .. .                                                            | 255          | ...      | 85         | ...      | ...                  | 340    |
| "  Defective Spouts, &c. ....                                                            | 367          | ...      | 69         | ...      | ...                  | 436    |
| "  Animals and Fowls .. .. .                                                             | 1            | 18       | ...        | 3        | ...                  | 22     |
| "  Overcrowding .. .. .                                                                  | 47           | 48       | 24         | 29       | ...                  | 148    |
| "  Manure and Refuse .. .. .                                                             | 31           | 32       | 9          | 20       | ...                  | 92     |
| "  Other Nuisances .. .. .                                                               | 44           | ...      | 12         | 1        | ...                  | 57     |
| To Limewash Dwelling Houses .. .. .                                                      | ...          | 3930     | ...        | 443      | ...                  | 4373   |
| "  "  Yards and Passages .. .. .                                                         | 198          | ...      | ...        | ...      | ...                  | 198    |
| "  Cleanse or Limewash .. .. .                                                           | ...          | ...      | ...        | ...      | 90                   | 90     |
| "  Provide Conveniences .. .. .                                                          | ...          | ...      | ...        | ...      | 17                   | 17     |
| "  Workshop Roof Defective .. .. .                                                       | ...          | ...      | ...        | ...      | 1                    | 1      |
| "  Limewash Conveniences .. .. .                                                         | ...          | ...      | ...        | ...      | 9                    | 9      |
| "  Repair Conveniences .. .. .                                                           | ...          | ...      | ...        | ...      | 10                   | 10     |
| "  "  Defective Drains .. .. .                                                           | ...          | ...      | ...        | ...      | 5                    | 5      |
| "  Provide Suitable or Sufficient<br>Conveniences .. .. .                                | ...          | ...      | ...        | ...      | 2                    | 2      |
| "  Cleanse Bakehouses .. .. .                                                            | ...          | ...      | ...        | ...      | 11                   | 11     |
| "  Repair .. .. .                                                                        | ...          | ...      | ...        | ...      | 10                   | 10     |
| "  Cleanse Milkshops .. .. .                                                             | ...          | ...      | ...        | ...      | 1                    | 1      |
| "  Limewash Restaurant Kitchens .. .. .                                                  | ...          | ...      | ...        | ...      | 8                    | 8      |
| "  Cease to use Milkshops as Oil<br>Stores .. .. .                                       | ...          | ...      | ...        | ...      | 10                   | 10     |
| "  Abate Overcrowding .. .. .                                                            | ...          | ...      | ...        | ...      | 3                    | 3      |
| "  Remove Accumulation of Rubbish .. .. .                                                | ...          | ...      | ...        | ...      | 3                    | 3      |
| "  Register for Sale of Milk .. .. .                                                     | ...          | ...      | ...        | ...      | 132                  | 132    |
| "  Provide Lists of Outworkers .. .. .                                                   | ...          | ...      | ...        | ...      | 61                   | 61     |
| "  Display Shop Hours Act .. .. .                                                        | ...          | ...      | ...        | ...      | 16                   | 16     |
| Infringement of Margarine Act .. .. .                                                    | ...          | ...      | ...        | ...      | 30                   | 30     |
| Failure to Display Abstract, etc.,<br>Reported to H.M. Inspector of<br>Factories .. .. . | ...          | ...      | ...        | ...      | 45                   | 45     |
| Reports to Borough Surveyor .. .. .                                                      | ...          | ...      | ...        | ...      | 14                   | 14     |
| Other Reports .. .. .                                                                    | ...          | ...      | ...        | ...      | 25                   | 25     |
| Totals .. .. .                                                                           | 3181         | 4375     | 1201       | 654      | 503                  | 9914   |

TABLE III.  
COMPLAINTS RECEIVED AT THE HEALTH OFFICE,  
and attended to during the year 1905.

| NATURE OF COMPLAINTS.                                | Totals. |
|------------------------------------------------------|---------|
| Smoke Nuisance .....                                 | 2       |
| Overcrowding .....                                   | 17      |
| Damp and Dilapidated Houses.....                     | 4       |
| Defective Roofs and Spouts .....                     | 15      |
| Dirty Yards, Rooms, &c. ....                         | 14      |
| Defective Yards .....                                | 2       |
| Foul and Defective Water Closets.....                | 49      |
| Defective Privy Middens .....                        | 14      |
| *Defective Drains .....                              | 78      |
| Animals kept in such a state as to be a nuisance ... | 3       |
| Accumulation of Offensive Refuse.....                | 7       |
| Houses without a proper supply of Water .....        | 1       |
| Other Nuisances .....                                | 80      |
| Total .....                                          | 286     |

\* 19 of these were requests to test drains, not actual complaints.

TABLE IV.

Showing Notices served in each District.

|                                                                                    | No. 1<br>District. | No. 2<br>District. | No. 3<br>District. | No. 4<br>District. | No. 5<br>District. | No. 6<br>District. | East End<br>District. | Workshops'<br>Inspector. | TOTALS. |
|------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------|--------------------------|---------|
| To Cleanse Premises .....                                                          | 7                  | ...                | 1                  | 7                  | 44                 | 1                  | 33                    | ...                      | 93      |
| To Cleanse Premises after Infectious<br>Disease .....                              | 50                 | ...                | 64                 | 107                | 28                 | 98                 | 6                     | ...                      | 353     |
| To abate Nuisance arising from :—                                                  |                    |                    |                    |                    |                    |                    |                       |                          |         |
| Drains .....                                                                       | 102                | 96                 | 7                  | 76                 | 55                 | 47                 | 35                    | ...                      | 418     |
| Water-Closets .....                                                                | 156                | 123                | 7                  | 48                 | 49                 | 52                 | 177                   | ...                      | 612     |
| Privies and Ashpits .....                                                          | 344                | 398                | 196                | 451                | 259                | 310                | 19                    | ...                      | 1977    |
| Yard Pavements .....                                                               | 90                 | 72                 | 9                  | 13                 | 41                 | 61                 | 6                     | ...                      | 292     |
| Dilapidated Houses .....                                                           | 64                 | 94                 | 3                  | 71                 | 44                 | 9                  | 55                    | ...                      | 340     |
| Defective Spouts, &c. ....                                                         | 104                | 55                 | 5                  | 122                | 37                 | 54                 | 59                    | ...                      | 436     |
| Animals and Fowls .....                                                            | 1                  | 14                 | ...                | 4                  | ...                | ...                | 3                     | ...                      | 22      |
| Overcrowding.....                                                                  | 22                 | 64                 | ...                | 8                  | 9                  | 2                  | 43                    | ...                      | 148     |
| Manure and Refuse .....                                                            | 17                 | 37                 | 6                  | 13                 | 1                  | 2                  | 16                    | ...                      | 92      |
| Other Nuisances .....                                                              | 24                 | ...                | 2                  | 1                  | 4                  | 24                 | 2                     | ...                      | 57      |
| To Lime-Wash Dwelling Houses .....                                                 | 972                | ...                | ...                | 594                | 1046               | 443                | 1318                  | ...                      | 4373    |
| "    Yards and Passages.....                                                       | ...                | ...                | ...                | ..                 | ...                | ...                | 198                   | ...                      | 198     |
| "    Cleanse or Limewash .....                                                     | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 90                       | 90      |
| "    provide Conveniences.....                                                     | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 17                       | 17      |
| "    Workshop Roof Defective.....                                                  | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 1                        | 1       |
| "    Limewash Conveniences .....                                                   | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 9                        | 9       |
| "    Repair Conveniences .....                                                     | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 10                       | 10      |
| "    Repair Defective Drains .....                                                 | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 5                        | 5       |
| "    Provide snitable or sufficient Con-<br>veniences .....                        | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 2                        | 2       |
| "    Cleanse Bakehouses .....                                                      | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 11                       | 11      |
| "    Repair Bakehouses.....                                                        | ...                | ...                | ..                 | ...                | ...                | ...                | ...                   | 10                       | 10      |
| "    Cleanse Milkshops.....                                                        | ...                | ...                | ...                | ...                | ...                | ...                | ..                    | 1                        | 1       |
| "    Limewash Restaurant Kitchens .....                                            | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 8                        | 8       |
| "    Cease to use Milkshop as Oil Stores ...                                       | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 10                       | 10      |
| "    Abate Overcrowding .....                                                      | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 3                        | 3       |
| "    Remove Accumulation of Rubbish .....                                          | ...                | ...                | ..                 | ...                | ...                | ...                | ...                   | 3                        | 3       |
| "    Register for Sale of Milk... ..                                               | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 132                      | 132     |
| "    Provide Lists of Outworkers.....                                              | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 61                       | 61      |
| "    Display Shop Hours Act .....                                                  | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 16                       | 16      |
| Infringement of Margarine Act.....                                                 | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 30                       | 30      |
| Failure to display Abstract, etc., Reported<br>to H.M. Inspector of Factories..... | ...                | ...                | ...                | ...                | ...                | ..                 | ...                   | 45                       | 45      |
| Reports to Borough Surveyor .....                                                  | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 14                       | 14      |
| Other Reports .....                                                                | ...                | ...                | ...                | ...                | ...                | ...                | ...                   | 25                       | 25      |
| TOTALS .....                                                                       | 1953               | 953                | 300                | 1515               | 1617               | 1103               | 1970                  | 503                      | 9914    |



TABLE V.  
STRUCTURAL WORK DONE.

|                        |      |                           |      |
|------------------------|------|---------------------------|------|
| Drains :—              |      | Dwelling Houses :—        |      |
| Repaired .....         | 481  | Generally repaired ..     | 286  |
| Reconstructed .....    | 2554 | Spouts .....              | 351  |
| Privies and Ashpits :— |      | Cleansed or limewashed    | 3173 |
| Repaired .....         | 7    | Overcrowding abated..     | 83   |
| Abolished .....        | 1922 | Baths, Sinks, lavatory,   |      |
| W.C. and Bin provided  | 1964 | etc. ....                 | 56   |
| W.C.'s and Urinals :—  |      | Unsound Food :—           |      |
| New ones provided ...  | 44   | Meat (beef), 24 carcasses |      |
| Repaired or recon-     |      | and organs and 17 sets    |      |
| structed .....         | 326  | of organs.                |      |
| Lighted or ventilated  | 2    | Fish, 4 seizures.         |      |
| Ashpits (Dust Bins :—  |      | Poultry, 6 seizures.      |      |
| Repaired ... ..        | 4    | Food and Drugs Act :—     |      |
| New Bins provided ...  | 519  | Samples purchased for     |      |
| Yard Pavements :—      |      | analysis .....            | 164  |
| Repaired .....         | 149  |                           |      |
| Reconstructed .....    | 176  |                           |      |

TABLE VI.  
DRAIN TESTING.

|                                                           | Nature of Test. |           |        | Total. | Defective. |
|-----------------------------------------------------------|-----------------|-----------|--------|--------|------------|
|                                                           | Water.          | Chemical. | Smoke. |        |            |
| Drains Tested on Complaint.....                           | 18              | 22        | 48     | 88     | 45         |
| „ on Suspicion of Nuisance...                             | 9               | 60        | 10     | 79     | 48         |
| „ after Infectious Disease ...                            | 19              | 168       | 18     | 205    | 44         |
| „ to ascertain if work in progress was satisfactory ..... | 2759            | 20        | 49     | 2828   | 235        |
| Drains Retested .....                                     | 403             | 5         | 7      | 415    | 47         |
| Totals .....                                              | 3208            | 275       | 132    | 3615   | 419        |

TABLE VII.  
DISINFECTING.

| Articles.        | Disinfected. | Burned. | Rooms.      | No.  |
|------------------|--------------|---------|-------------|------|
| Beds.....        | 512          | 18      |             |      |
| Mattresses ..... | 457          | 36      |             |      |
| Blankets.. ..... | 846          | ...     |             |      |
| Pillows .....    | 1103         | ...     |             |      |
| Quilts .....     | 749          | ...     |             |      |
| Bolsters .....   | 364          | ...     |             |      |
| Sheets.....      | 556          | ...     |             |      |
| Carpets.....     | 165          | ...     |             |      |
| Shawls .....     | 108          | ...     |             |      |
| Sundries.....    | 743          | ...     |             |      |
| Totals ... ..    | 5603         | 54      | Total ..... | 1670 |

## REGISTERED COMMON LODGING HOUSES.

TABLE VIII.

| LOCALITY OF HOUSE.                  | No. of Rooms. | No. of Lodgers. | No. of Single Beds. | No. of Double Beds. | No. of Beds under the Registered Accommodation. |
|-------------------------------------|---------------|-----------------|---------------------|---------------------|-------------------------------------------------|
| 5, Cumberland Street.....           | 12            | 43              | 43                  | —                   | —                                               |
| 4 and 5, Bedford Street.....        | 12            | 78              | 67                  | 4                   | 3                                               |
| 3 and 4, Charles Street .....       | 12            | 37              | 37                  | —                   | —                                               |
| 33, Number's Garth .....            | 5             | 14              | 5                   | 4                   | 1                                               |
| 41, 42, and 43, Spring Garden Lane  | 12            | 41              | 19                  | 10                  | 2                                               |
| 38, Spring Garden Lane .....        | 8             | 21              | 3                   | 9                   | —                                               |
| 6, Mand's Lane .....                | 6             | 38              | 34                  | —                   | —                                               |
| 1, Horn's Lane .....                | 8             | 36              | 36                  | —                   | —                                               |
| 10, Church Street East .....        | 9             | 36              | 36                  | —                   | —                                               |
| 35, Lombard Street .....            | 8             | 18              | 10                  | 4                   | —                                               |
| 2, Queen Street East... ..          | 7             | 47              | 21                  | 13                  | —                                               |
| 2, Arras Lane.....                  | 8             | 64              | 40                  | 12                  | —                                               |
| 3, Mill Street .....                | 8             | 22              | 2                   | 10                  | —                                               |
| 13, Havelock Street .....           | 8             | 20              | 6                   | 7                   | —                                               |
| 3 and 4, Queen Street East .....    | 6             | 51              | 46                  | —                   | —                                               |
| 14 and 15, George Street East ..... | 18            | 53              | 53                  | —                   | —                                               |
| 11, Grey Street } .....             | 14            | 83              | 83                  | —                   | —                                               |
| 29, High Street East }              |               |                 |                     |                     |                                                 |
| 5 and 6, High Street East .....     | 8             | 112             | 112                 | —                   | —                                               |
| 170, High Street East .....         | 2             | 5               | 3                   | 1                   | —                                               |
| 29, Warren Street .....             | 2             | 9               | —                   | 3                   | 3                                               |
| 10, Old Grey Street .....           | 5             | 13              | 4                   | 3                   | 3                                               |
| 195½, High Street East.....         | 2             | 15              | 13                  | 1                   | —                                               |
| Totals .....                        | 187           | 856             | 691                 | 81                  | 12                                              |

## APPLICATION FOR NEW LICENSE :—

77, High Street East .....Granted.

## APPLICATION FOR TRANSFER OF LICENSE :—

39, Outram Street .....Refused.

44, Spring Garden Lane .....Refused.

3, George Street .....Refused.

APPLICATION FOR ADDITIONAL  
ACCOMMODATION :—

10, Church Street East .....Granted.



## TABLE IX.

## OFFENSIVE TRADES.

The Offensive Trades carried on in the Town are as follows :—

|                            |    |
|----------------------------|----|
| Gut Scraping Houses .....  | 2  |
| Tallow Melting Works ..... | 1  |
| Marine Store Dealers ..... | 17 |
| Fish Curing Houses .....   | 3  |
| Chemical Works .....       | 1  |
| Tripe Preparers .....      | 10 |
| Skin Warehouses .....      | 2  |
| Oil and Grease Works ..... | 1  |
| Paint Works .....          | 2  |
| Total.....                 | 39 |

## TABLE X.

## TABLE OF FOOD CONDEMNED AND DESTROYED.

| NATURE OF FOOD SEIZED.     | Quantity.   |
|----------------------------|-------------|
| <b>MEAT.</b>               |             |
| Beef .....                 | 12,502 lbs. |
| Pork .....                 | 383 lbs.    |
| Lungs .....                | 3 sets.     |
| Organs of Animals .....    | 14 sets.    |
| Rabbits (decomposed) ..... | 71          |
| <b>FISH.</b>               |             |
| Haddocks .....             | 28 lbs.     |
| Prawns .....               | 36½ lbs.    |
| Skate .....                | 506 lbs.    |
| <b>FOWLS.</b>              |             |
| Turkey .....               | 8½ lbs.     |
| Goose .....                | 5 lbs.      |
| Chickens .....             | 6½ lbs.     |

TABLE XI.

Showing the Number of Registered Factories in the Borough.

| Factories                  | No. of<br>Factories. | Factories.                       | No. of<br>Factories. |
|----------------------------|----------------------|----------------------------------|----------------------|
| Ale Bottlers .....         | 3                    | Joiners .....                    | 23                   |
| Bakers .....               | 4                    | Laundries .....                  | 7                    |
| Bicycle Makers .....       | 2                    | Millers .....                    | 5                    |
| Bookbinders .....          | 3                    | Mineral Water Manufacturers      | 5                    |
| Boot and Shoe Makers ..... | 3                    | Model Maker .....                | 1                    |
| Bottle Maker .....         | 1                    | Moulding Mills .....             | 1                    |
| Box Maker .....            | 1                    | Organ Builder .....              | 1                    |
| Brass Founders .....       | 6                    | Paint Manufacturers .....        | 2                    |
| Blacksmith .....           | 2                    | Paper Bag Maker .....            | 1                    |
| Brewers .....              | 6                    | Potter .....                     | 1                    |
| Brick Makers .....         | 4                    | Plumber .....                    | 1                    |
| Brush Maker .....          | 1                    | Preserve Makers .....            | 2                    |
| Cabinet Makers .....       | 9                    | Printers .....                   | 28                   |
| Candle Maker .....         | 1                    | Rope Manufacturers .....         | 4                    |
| Carriage Builders .....    | 4                    | Sail and Flag Maker .....        | 1                    |
| Cattle Spice Maker .....   | 1                    | Sculptor .....                   | 1                    |
| Cement Manufacturer .....  | 1                    | Shipbuilders and Repairers ..... | 6                    |
| Compass Makers .....       | 4                    | Ships' Lamp Makers .....         | 2                    |
| Dyer .....                 | 1                    | Steering Wheel Maker .....       | 1                    |
| Engineers .....            | 21                   | Stocking Knitter .....           | 1                    |
| File Maker .....           | 1                    | Stone Dressers .....             | 3                    |
| Finings Manufacturer ..... | 1                    | Timber Sawyers .....             | 4                    |
| Galvanizer .....           | 1                    | Tobacco Manufacturer .....       | 1                    |
| Gas Manufacturer .....     | 1                    | Whiting Manufacturer .....       | 1                    |
| Glass Manufacturers .....  | 2                    | Window Blind Maker .....         | 1                    |
| Ice Cream Maker .....      | 1                    | Wood Turners .....               | 2                    |
| Ironfounders .....         | 11                   |                                  |                      |
|                            | 96                   |                                  | 106                  |

TABLE XII.

Showing the Number of Registered Workshops, Nature of Trades,  
and Number of Employees.

| TRADES.                     | Number of each. | Em-<br>ploying |          | TRADES.                   | Number of each. | Em-<br>ploying. |          |
|-----------------------------|-----------------|----------------|----------|---------------------------|-----------------|-----------------|----------|
|                             |                 | Males.         | Females. |                           |                 | Males.          | Females. |
| Ale Bottlers .....          | 3               | 13             | 9        | Metal Broker .....        | 1               | ...             | ...      |
| Artificial Stone Makers ... | 2               | 20             | ...      | Milliners and Dressmakers | 104             | 5               | 913      |
| Auctioneer .....            | 1               | ...            | ...      | Model Makers .....        | 4               | 10              | ...      |
| Bacon Washers.....          | 2               | ...            | ...      | Motor Repairer .....      | 1               | 2               | ...      |
| Bakers and Confectioners..  | 156             | 90             | 195      | Painters .....            | 4               | ...             | ...      |
| Bicycle Makers.....         | 12              | 23             | ..       | Paper Bag Maker .....     | 1               | ...             | 4        |
| Blacksmiths .....           | 30              | 96             | ...      | Pattern Maker .....       | 1               | 3               | ...      |
| Block and Mast Makers...    | 2               | 5              | ...      | Photographers .....       | 8               | 15              | 6        |
| Boat Builders .....         | 5               | 23             | ...      | Picture Frame Makers ...  | 11              | 21              | ...      |
| Botanical Brewer.....       | 1               | 4              | ..       | Pipe Makers.....          | 2               | 17              | 5        |
| Bottle Exchange .....       | 1               | ...            | 2        | Plasterers .....          | 2               | ...             | ...      |
| Boot and Shoe Makers ...    | 63              | 128            | ...      | Plumbers .....            | 27              | 149             | ...      |
| Brush Makers .....          | 3               | 7              | 20       | Potter .....              | 1               | ...             | ...      |
| Cab Proprietors .....       | 2               | ...            | ...      | Restaurant Kitchens ..... | 34              | ...             | ...      |
| Cabinet Makers .....        | 31              | 108            | ...      | Salt Packers.....         | 3               | ...             | 8        |
| Cartwrights .....           | 8               | 32             | ...      | Sculptors .....           | 5               | 18              | ...      |
| Carvers and Gilders.....    | 3               | 8              | ...      | Ship Chaudler .....       | 1               | ...             | ...      |
| Cement Works.....           | 1               | ...            | ...      | Sign Writers.....         | 2               | 9               | ...      |
| Clogger .....               | 1               | 5              | ...      | Skin Cleaner.....         | 1               | 4               | ...      |
| Coopers .....               | 5               | 15             | ...      | Skin Warehouses... ..     | 2               | 5               | ...      |
| Coppersmiths .....          | 1               | 3              | ...      | Slaters .....             | 2               | ...             | ...      |
| Disinfectant Maker.....     | 1               | 3              | ...      | Slipper Maker .....       | 1               | 1               | ...      |
| Drysalter .....             | 1               | 3              | ...      | Stocking Knitters .....   | 5               | ...             | 6        |
| Electrical Engineer .....   | 1               | 3              | ...      | Sugar Boiler .....        | 1               | 1               | 1        |
| Engravers .....             | 2               | 7              | ...      | Tailors .....             | 85              | 277             | 144      |
| Fish Curers .....           | 3               | 5              | 12       | Tent Maker .....          | 1               | 12              | 2        |
| French Polishers.....       | 7               | 16             | 1        | Tinsmiths .....           | 11              | 20              | ...      |
| Grease and Varnish Maker    | 1               | 4              | ...      | Toy Maker .....           | 1               | 1               | ...      |
| Gut Scrapers.....           | 2               | 6              | ...      | Tripe Preparers .....     | 10              | 17              | 6        |
| Gun Maker .....             | 1               | 2              | ...      | Umbrella Maker .....      | 1               | 2               | 1        |
| Harness Makers .....        | 5               | 38             | 12       | Upholsterers .....        | 6               | 19              | 19       |
| Haulage Contractor.....     | 1               | ...            | ..       | Watchmakers .. ..         | 9               | 19              | ...      |
| Joiners .....               | 60              | 239            | ...      | Weighing Machine Maker    | 1               | 4               | 1        |
| Malting .....               | 1               | ...            | ...      | Wharfinger .....          | 1               | ...             | ...      |
| Marine Stores .....         | 17              | 3              | 51       | Window Blind Maker ...    | 1               | 2               | ...      |
| Mattress Makers.....        | 5               | 38             | 12       | Wire Worker .....         | 2               | 2               | ...      |
|                             | 446             | 947            | 314      |                           | 353             | 635             | 1116     |



TABLE XIII.

## FACTORIES AND WORKSHOPS.

The following work has been performed by the Inspector appointed for this purpose.

| VISITS OF INSPECTION.                     |      |
|-------------------------------------------|------|
| Factories .....                           | 834  |
| Workshops.....                            | 3456 |
| Workplaces .....                          | 128  |
| Outworkers .....                          | 571  |
| Outworkers, Employers of .....            | 26   |
| Bakehouses .....                          | 1048 |
| Milkshops .....                           | 596  |
| Dwelling-houses—Infectious Diseases ..... | 9    |
| Dwelling-houses—Enquiries .....           | 3    |
| Shop Hours Act—Enquiries .....            | 394  |
| Restaurants, Kitchens.....                | 75   |
| Food and Drugs Act .....                  | 149  |
| Other Visits .....                        | 828  |
| Totals .....                              | 8117 |

TABLE XIV.

## NOTICES (WORKSHOPS, &amp;c.)

|                                                                                   |     |
|-----------------------------------------------------------------------------------|-----|
| To Cleanse or Limewash.....                                                       | 90  |
| „ Provide Conveniences.....                                                       | 17  |
| „ Workshop Roof Defective .....                                                   | 1   |
| „ Limewash Conveniences.....                                                      | 9   |
| „ Repair Conveniences .....                                                       | 10  |
| „ Repair Defective Drains .....                                                   | 5   |
| „ Provide Suitable or Sufficient Conveniences .....                               | 2   |
| „ Cleanse Bakehouses .....                                                        | 11  |
| „ Repair Bakehouses.....                                                          | 10  |
| „ Cleanse Milkshop .....                                                          | 1   |
| „ Limewash Restaurant Kitchens .....                                              | 8   |
| „ Cease to use Milkshops as Oil Stores .....                                      | 10  |
| „ Abate Overcrowding .....                                                        | 3   |
| „ Remove accumulation of Rubbish .....                                            | 3   |
| „ Register for Sale of Milk .....                                                 | 132 |
| „ Provide Lists of Outworkers.....                                                | 61  |
| „ Display Shop Hours Act .....                                                    | 16  |
| Infringement of Margarine Act.....                                                | 30  |
| Failure to Display Abstract, &c.—Reported to<br>H.M. Inspector of Factories ..... | 45  |
| Reports to Borough Surveyor.. . . .                                               | 14  |
| Other Reports .. . . .                                                            | 25  |
| Totals .....                                                                      | 503 |

TABLE XV.  
ANALYSIS OF FOOD AND DRUGS.

| Articles<br>Analysed.               | No. Analysed. | Result of<br>Analysis. |                   |                | Extent of Adulteration.                                                                                                                                                                                                                                                                                                                                             | Result of<br>Proceed-<br>ings.                                                                                                                |
|-------------------------------------|---------------|------------------------|-------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
|                                     |               | Genu-<br>ine.          | Adult-<br>erated. | Doubt-<br>ful. |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Milk .....                          | 62            | 47                     | 15                |                | 10 per cent. def. in milk fat ...<br>5 do. do. ...<br>5 do. do. ...<br>6·3 do. def. in non-fatty<br>solids .....<br>10 do. def. in milk fat ...<br>3·3 do. do. ...<br>16·6 do. do. ...<br>6·6 do. do. ...<br>10 do. do. ...<br>8·3 do. do. ...<br>3·3 do. do. ...<br>8·3 do. do. ...<br>10·0 do. do. ...<br>6·6 do. do. ...<br>16·6 do. do. ...<br>13·3 do. do. ... | (A.)<br>Cautioned<br>do.<br><br>Dismissed<br>do.<br>do.<br>Cautioned<br>Dismissed<br>do.<br>Dismissed<br>do.<br>Cautioned<br>Dismissed<br>do. |
| Butter .....                        | 66            | 56                     | 10                |                | 100 do. Margarine .....<br><br>100 do. do. ....<br>100 do. do. ....<br>100 do. do. ....<br><br>100 do. do. ....<br>100 do. do. ....<br>100 do. do. ....<br>100 do. do. ....<br>100 do. do. ....<br><br>100 do. do. ....                                                                                                                                             | Informal<br>sample<br>do.<br>do.<br>Defendant<br>absconded<br>£1 & costs<br>£1 do.<br>£5 do.<br>£20 do.<br>Informal<br>sample<br>Dismissed    |
| Lard .....                          | 5             | 5                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Cheese .....                        | 6             | 6                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Yeast .....                         | 1             | 1                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Coffee .....                        | 1             | 1                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Cocoa .....                         | 1             | 1                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| White Pepper .....                  | 2             | 2                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Ground Ginger .....                 | 2             | 2                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Mustard ... ..                      | 1             | 1                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Compound Licquorice<br>Powder ..... | 3             | 3                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Gregory Powder ... ..               | 3             | 3                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Paregoric .....                     | 3             | 3                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Glycerine .....                     | 4             | 4                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Tincture of Rhubarb ..              | 2             | 2                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Precipitated Sulphur ..             | 2             | 2                      |                   |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| Totals .....                        | 164           | 139                    | 25                |                |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |

(A.) This sample was purchased from a retail dealer, and on his informing me as to the source of his supply I arranged for a sample being taken from the farmer as the milk was being delivered to the retail dealer. The result of this is shewn by the sample taken which the Public Analyst certified to be 10 per cent. deficient in milk fat and 6·3 per cent. deficient in non-fatty solids. The case against the farmer was dismissed by the Justices.

TABLE XVI.  
MAGISTERIAL PROCEEDINGS.

| Particulars of Complaints.                                          | No. | How disposed of.                                                | Penalties Imposed. |
|---------------------------------------------------------------------|-----|-----------------------------------------------------------------|--------------------|
| Accumulation of offensive matter..                                  | 3   | 2 withdrawn, 1 abatement order                                  | 0 13 0             |
| Privies and ashpits out of repair..                                 | 11  | 7 withdrawn, 4 abatement orders                                 | 2 16 0             |
| Yard pavement defective.....                                        | 2   | 1 withdrawn, 1 abatement order                                  | 0 13 0             |
| Drains out of repair.....                                           | 8   | 2 abatement orders, 6 withdrawn                                 | 2 2 0              |
| Overcrowding .....                                                  | 2   | 2 withdrawn.....                                                | 0 8 0              |
| Offensive matter flowing into<br>sewers.....                        | 1   | Fined £2 and costs .....                                        | 2 0 0              |
| Foul and defective waterclosets...                                  | 32  | 26 fined 2s. 6d. each, 5 with-<br>drawn, 1 fined 10s. and costs | 4 15 0             |
| Selling goose and exposing<br>chickens unfit for food.....          | 1   | Fined £5 and costs .....                                        | 5 0 0              |
| Keeping lodging-houses without<br>being registered.....             | 2   | 1 fined £2 and costs, 1 fined £4<br>and costs.....              | 6 0 0              |
| Sewage being discharged on to land                                  | 1   | Withdrawn .....                                                 | 0 4 0              |
| Milk adulteration.....                                              | 9   | 9 dismissed on payment of costs                                 |                    |
| Butter adulteration .....                                           | 4   | 1 fined £5 and costs, 1 fined £20<br>and costs.....             | 25 0 0             |
| Margarine exposed for sale with-<br>out being properly labelled ... | 2   | 2 fined £1 and costs .. .. .                                    | 2 0 0              |
| Watercloset out of repair.....                                      | 1   | withdrawn .....                                                 | 0 4 0              |
| Refusing to pay for work done by<br>Corporation .....               | 1   | Withdrawn .....                                                 | 0 4 0              |
| Total... ..                                                         | 80  |                                                                 | £51 19 0           |

I am, Gentlemen,

Your obedient Servant,

JOHN PENNOCK,

Inspector of Nuisances

Health Office,

April, 1906.



# APPENDIX.

---

## VITAL & SANITARY STATISTICS,

INCLUDING THE

NEW TABLES REQUIRED BY THE LOCAL  
GOVERNMENT BOARD.

|   |       |   |
|---|-------|---|
| 3 | 1905. | 4 |
|---|-------|---|

TOGETHER WITH

ABSTRACTS FOR 10 YEARS, 1896-1905.

TABLE I.

Showing the Population, Inhabited Houses, Marriages, Births, and Deaths for the year **1905**, and 10 years preceding.

GROSS NUMBERS.

| The Year.                     | Estimated Population.<br>* | No. of Inhabited Houses. | Marriages. | Registered Births. | Registered Deaths. | Deaths in Public Institutions. |
|-------------------------------|----------------------------|--------------------------|------------|--------------------|--------------------|--------------------------------|
| 1905                          | 152,659                    | 23,105                   | 1,572      | 5,223              | 2,853              | 435                            |
| 1895                          | 137,620                    | 19,482                   | 1,368      | 4,819              | 2,990              | 356                            |
| 1896†                         | 139,055                    | 19,721                   | 1,519      | 4,873              | 2,784              | 322                            |
| 1897†                         | 140,505                    | 19,991                   | 1,590      | 4,905              | 2,777              | 313                            |
| 1898                          | 141,970                    | 20,229                   | 1,754      | 5,077              | 3,236              | 377                            |
| 1899                          | 143,450                    | 20,639                   | 1,630      | 5,184              | 3,113              | 462                            |
| 1900                          | 144,945                    | 21,078                   | 1,623      | 5,256              | 3,147              | 405                            |
| 1901                          | 146,456                    | 21,473                   | 1,625      | 5,279              | 3,123              | 401                            |
| 1902†                         | 147,983                    | 22,110                   | 1,550      | 5,391              | 2,914              | 456                            |
| 1903                          | 149,526                    | 22,405                   | 1,457      | 5,195              | 2,970              | 481                            |
| 1904                          | 151,093                    | 22,795                   | 1,545      | 5,194              | 2,935              | 464                            |
| Average of 10 Years, 1894-03. | 143,860                    | 20,993                   | 1,566      | 5,117              | 2,999              | 404                            |

## NOTES.

- 1.—Population at Census, 1901 = 146,077.
- 2.—Average Number of Persons in each House at Census, 1901 = 6·8.
- 3.—Area of Borough in Acres—3,396, exclusive of tidal water and foreshore, but including the docks.
- 4.—Average Number of Persons living on each acre at Census, 1901 = 43·0.
- 5.—The Marriages refer to the Registration District of Sunderland, which, in addition to the Municipal area, includes the townships of Ford, Tunstall, Ryhope, Fulwell, Southwick, and Hylton.

\* For Statistical purposes the Registrar General estimates the Population to the middle of the year, on the basis of rate of increase ruling between the two preceding census periods. The estimate of population may be checked to a certain extent by the known number of inhabited houses, and by the average number of inmates per house, as ascertained at the preceding census.

† In these years there were 53 weeks, therefore, in calculating annual rates from the figures given or the population, care should be taken to add a fifty-second part to them to get the true ratios.

† In the year 1897 the deaths occurring in the Borough Asylum were included amongst the total deaths for the first time.

TABLE II.

Showing the ANNUAL BIRTH and DEATH-RATES, DEATH-RATES OF CHILDREN, proportion of DEATHS IN PUBLIC INSTITUTIONS in 1000 Deaths for the year 1905 and 10 years preceding.

| In Year.<br>1                        | Birth Rates<br>per 1000 of the<br>Population.<br>2 | Death Rates<br>per 1000 of the<br>Population.<br>3 | Deaths of<br>Children under<br>1 Year per 1000<br>of Registered<br>Births.<br>4 | Deaths of<br>Children under<br>1 Year per<br>1000 of<br>Total Deaths.<br>5 | Deaths of<br>Children under<br>5 Years per<br>1000 of<br>Total Deaths.<br>6 | Deaths in<br>Public<br>Institutions<br>per 1000 of<br>Total Deaths.<br>7 |
|--------------------------------------|----------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1905                                 | 34.21                                              | 18.68                                              | 143                                                                             | 262                                                                        | 431                                                                         | 152                                                                      |
| 1895                                 | 35.02                                              | 21.72                                              | 191                                                                             | 312                                                                        | 452                                                                         | 119                                                                      |
| 1896†                                | 35.38                                              | 19.64                                              | 161                                                                             | 282                                                                        | 463                                                                         | 115                                                                      |
| 1897                                 | 34.91                                              | 19.76                                              | 168                                                                             | 296                                                                        | 442                                                                         | 113                                                                      |
| 1898                                 | 35.76                                              | 22.79                                              | 202                                                                             | 317                                                                        | 490                                                                         | 116                                                                      |
| 1899                                 | 36.13                                              | 21.70                                              | 175                                                                             | 293                                                                        | 438                                                                         | 148                                                                      |
| 1900                                 | 36.26                                              | 21.71                                              | 169                                                                             | 282                                                                        | 437                                                                         | 128                                                                      |
| 1901                                 | 36.04                                              | 21.32                                              | 179                                                                             | 302                                                                        | 543                                                                         | 128                                                                      |
| 1902†                                | 35.74                                              | 19.32                                              | 153                                                                             | 283                                                                        | 426                                                                         | 153                                                                      |
| 1903                                 | 34.47                                              | 19.86                                              | 157                                                                             | 274                                                                        | 446                                                                         | 162                                                                      |
| 1904                                 | 34.31                                              | 19.42                                              | 165                                                                             | 292                                                                        | 429                                                                         | 158                                                                      |
| Average of<br>10 Years,<br>1894-1903 | 35.40                                              | 20.72                                              | 172                                                                             | 293                                                                        | 456                                                                         | 134                                                                      |

† There were 53 weeks in these years, and the rates have therefore been corrected for the extra week.



TABLE III.

SHOWING DEATHS FROM ALL CAUSES DURING THE YEAR 1905.

| CAUSES OF DEATH.                                               |    |            |         | 0 to 1 | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 35 | 35 to 45 | 45 to 55 | 55 to 65 | 65 to 75 | 75 to 85 | 85 to 95 | 95 and upwards | Totals. |    |
|----------------------------------------------------------------|----|------------|---------|--------|--------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------------|---------|----|
| Smallpox                                                       | {  | Vaccinated | .. .. . | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      | .. |
| Unvaccinated                                                   |    | .. .. .    | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| No statement                                                   |    | .. .. .    | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Measles                                                        | .. | ..         | ..      | ..     | 20     | 75      | 6        | ..       | 1        | ..       | ..       | ..       | ..       | ..       | ..             | 102     |    |
| Scarlet Fever                                                  | .. | ..         | ..      | ..     | ..     | ..      | 1        | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | 1       |    |
| Typhus Fever                                                   | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Epidemic Influenza                                             | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | 2        | 1        | 1        | 2        | 2        | 1        | ..             | 9       |    |
| Whooping Cough                                                 | .. | ..         | ..      | ..     | 26     | 32      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | 58      |    |
| Diphtheria, Membranous Croup                                   | .. | ..         | ..      | ..     | 1      | 20      | 9        | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | 30      |    |
| Enteric Fever                                                  | .. | ..         | ..      | ..     | ..     | 4       | 5        | 7        | 8        | 3        | 2        | 1        | 1        | ..       | ..             | 31      |    |
| Asiatic Cholera                                                | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Diarrhœa, Dysentery                                            | .. | ..         | ..      | ..     | 54     | 23      | 1        | ..       | ..       | 1        | ..       | 1        | 1        | ..       | ..             | 81      |    |
| Epidemic or Zymotic Enteritis                                  | .. | ..         | ..      | ..     | 29     | 12      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | 41      |    |
| Other Allied Diseases                                          | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Hydrophobia                                                    | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Glanders, Farcy                                                | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Tetanus                                                        | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Anthrax, Splenic Fever                                         | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Cowpox, Accidents of Vaccination                               | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Syphilis                                                       | .. | ..         | ..      | ..     | 6      | ..      | ..       | ..       | 1        | ..       | ..       | ..       | ..       | ..       | ..             | 7       |    |
| Gonorrhœa                                                      | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Phagedœna                                                      | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Erysipelas                                                     | .. | ..         | ..      | ..     | 3      | ..      | ..       | 1        | ..       | ..       | ..       | ..       | ..       | ..       | ..             | 4       |    |
| Puerperal Fever                                                | .. | ..         | ..      | ..     | ..     | ..      | ..       | 2        | 1        | 4        | ..       | ..       | ..       | ..       | ..             | 7       |    |
| Pyæmia, Septicæmia                                             | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | 3        | 1        | ..       | ..       | ..             | 4       |    |
| Infective Endocarditis                                         | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | 1        | ..       | ..       | ..       | ..       | ..             | 1       |    |
| Other Allied Diseases                                          | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Malarial Fever                                                 | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | 1        | ..       | ..       | ..       | ..             | 1       |    |
| Rheumatic Fever                                                | .. | ..         | ..      | ..     | ..     | ..      | 2        | ..       | 1        | 1        | 2        | 1        | ..       | ..       | ..             | 7       |    |
| Rheumatism of the Heart                                        | .. | ..         | ..      | ..     | ..     | ..      | 1        | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | 1       |    |
| Tuberculosis of Brain or Meninges, Acute Hydrocephalus         | .. | ..         | ..      | ..     | 14     | 23      | 10       | 3        | 1        | 1        | ..       | ..       | ..       | ..       | ..             | 52      |    |
| Tuberculosis of Larynx                                         | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Tuberculosis of Lungs                                          | .. | ..         | ..      | ..     | 3      | 10      | 13       | 41       | 69       | 36       | 28       | 7        | 4        | ..       | ..             | 211     |    |
| Tuberculosis of Intestines, Tabes Mesenterica                  | .. | ..         | ..      | ..     | ..     | 17      | 21       | 5        | 2        | 1        | ..       | 2        | 1        | ..       | ..             | 49      |    |
| General Tuberculosis, Tubercular Disease of Undefined Position | .. | ..         | ..      | ..     | 6      | 15      | 6        | 3        | 1        | 4        | ..       | 1        | ..       | ..       | ..             | 36      |    |
| Other forms of Tuberculosis, Scrophula                         | .. | ..         | ..      | ..     | 1      | 1       | 4        | 3        | 1        | 1        | ..       | ..       | ..       | ..       | ..             | 11      |    |
| Other Infective Diseases                                       | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Thrush                                                         | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Actinomycosis                                                  | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Hydatid Diseases                                               | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Scurvy                                                         | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Other Diseases due to altered Food                             | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Acute Alcoholism, Delirium Tremens                             | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Chronic Alcoholism                                             | .. | ..         | ..      | ..     | ..     | ..      | ..       | 1        | 1        | 1        | ..       | ..       | ..       | ..       | ..             | 3       |    |
| Chronic Industrial Poisoning                                   | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Other Chronic Poisonings                                       | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Osteo-arthritis, Rheumatoid Arthritis                          | .. | ..         | ..      | ..     | ..     | ..      | ..       | 1        | ..       | 1        | ..       | 3        | 1        | ..       | ..             | 6       |    |
| Gout                                                           | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | 1        | ..       | ..             | 1       |    |
| Cancer                                                         | .. | ..         | ..      | ..     | ..     | ..      | 1        | 6        | 15       | 34       | 35       | 22       | 6        | 1        | ..             | 120     |    |
| Diabetes Mellitus                                              | .. | ..         | ..      | ..     | ..     | ..      | 1        | 2        | ..       | ..       | 2        | 3        | ..       | ..       | ..             | 8       |    |
| Purpura Hæmorrhagica                                           | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Hæmophilia                                                     | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |
| Anæmia, Lencocythæmia                                          | .. | ..         | ..      | ..     | ..     | ..      | ..       | 2        | ..       | ..       | 2        | ..       | ..       | ..       | ..             | 4       |    |
| Lymphadenoma, Hodgkin's Disease                                | .. | ..         | ..      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..             | ..      |    |





TABLE III.—CONTINUED.

| CAUSES OF DEATH.                                                                  | 0 to 1. | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 35 | 35 to 45 | 45 to 55 | 55 to 65 | 65 to 75 | 75 to 85 | 85 to 95 | 95 and upwards | Totals. |
|-----------------------------------------------------------------------------------|---------|--------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------------|---------|
| <b>Diseases of Lymphatic System and Ductless Glands</b> .. .. .                   |         |        |         | 1        | 1        | 1        |          | 2        |          |          |          |                | 5       |
| <b>Acute Nephritis</b> .. .. .                                                    | 1       | 11     | 1       | 3        |          | 3        | 5        | 2        | 2        | 1        |          |                | 29      |
| Bright's Disease .. .. .                                                          |         | 2      | 1       |          | 4        | 11       | 3        | 15       | 9        | 1        |          |                | 46      |
| Calculus .. .. .                                                                  |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Diseases of Bladder and Prostate .. .. .                                          |         |        |         |          | 1        |          | 1        | 2        | 4        | 1        |          |                | 9       |
| Other and Ill-defined Diseases of Urinary System .. .. .                          |         |        |         | 1        | 1        | 1        | 1        | 1        | 1        | 1        |          |                | 7       |
| <b>Diseases of Testis and Penis</b> .. .. .                                       |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Diseases of Ovaries .. .. .                                                       |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Diseases of Uterus and Appendages .. .. .                                         |         | 1      |         | 1        | 1        | 1        |          |          |          |          |          |                | 4       |
| Diseases of Vagina and External Genital Organs .. .. .                            |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Diseases of Breast .. .. .                                                        |         |        |         |          |          |          |          |          |          |          |          |                |         |
| <b>Abortion, Miscarriage</b> .. .. .                                              |         |        |         |          | 1        | 1        |          |          |          |          |          |                | 2       |
| Puerperal Mania .. .. .                                                           |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Puerperal Convulsions .. .. .                                                     |         |        |         |          | 1        |          |          |          |          |          |          |                | 1       |
| Placenta Prævia, Flooding .. .. .                                                 |         |        |         |          | 1        | 2        |          |          |          |          |          |                | 3       |
| Puerperal Thrombosis .. .. .                                                      |         |        |         |          |          | 1        |          |          |          |          |          |                | 1       |
| Other and Ill-defined Accidents and Diseases of Pregnancy and Child Birth .. .. . |         |        |         | 2        | 3        |          |          |          |          |          |          |                | 5       |
| <b>Arthritis, Ostitis, Periostitis</b> .. .. .                                    |         |        | 1       |          |          |          |          |          |          |          |          |                | 1       |
| Other and Ill-defined Diseases of the Osseous System .. .. .                      |         |        |         |          |          | 1        | 1        | 1        |          |          |          |                | 3       |
| <b>Ulcer, Bed sore</b> .. .. .                                                    |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Eczema .. .. .                                                                    | 1       |        |         |          |          |          |          |          |          |          |          |                | 1       |
| Pemphigus .. .. .                                                                 | 1       |        |         |          |          |          |          |          |          |          |          |                | 1       |
| Other and Ill-defined Diseases of Integumentary System .. .. .                    |         |        |         |          |          |          |          |          | 2        |          |          |                | 2       |
| <b>Accident or Negligence</b> .. .. .                                             |         |        |         |          |          |          |          |          |          |          |          |                |         |
| In Mines and Quarries .. .. .                                                     |         |        |         |          | 1        |          |          |          | 1        |          |          |                | 2       |
| In Vehicular Traffic .. .. .                                                      |         | 1      | 1       |          |          | 1        |          | 1        |          | 1        |          |                | 5       |
| On Railways .. .. .                                                               |         |        |         | 1        |          | 1        |          |          |          |          |          |                | 2       |
| On Ships, Boats, and Docks (excluding Drowning) .. .. .                           |         | 1      |         | 2        | 1        |          | 2        |          | 1        |          |          |                | 7       |
| In Building Operations .. .. .                                                    |         |        |         |          |          |          | 1        |          |          |          |          |                | 1       |
| By Machinery .. .. .                                                              |         |        | 1       |          |          |          |          |          |          |          |          |                | 1       |
| By Weapons and Implements .. .. .                                                 |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Burns and Scalds .. .. .                                                          | 1       | 7      | 2       | 2        |          | 1        | 1        |          |          |          |          |                | 14      |
| Poisons, Poisonous Vapours .. .. .                                                |         | 1      | 1       |          |          |          |          |          | 1        |          |          |                | 3       |
| Surgical Narcosis .. .. .                                                         |         |        |         |          | 1        |          |          |          |          |          |          |                | 1       |
| Effects of Electric Shock .. .. .                                                 |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Corrosion by Chemicals .. .. .                                                    |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Drowning .. .. .                                                                  |         | 1      | 1       | 2        | 3        | 2        |          | 1        |          |          |          |                | 10      |
| Suffocation, Overlaid in Bed .. .. .                                              | 4       |        |         |          |          |          |          |          |          |          |          |                | 4       |
| Suffocation, otherwise .. .. .                                                    |         |        | 1       |          | 1        |          |          |          |          |          |          |                | 2       |
| Falls, not specified .. .. .                                                      |         |        | 2       | 2        | 7        | 4        | 3        | 3        | 5        | 2        |          |                | 28      |
| Weather Agencies .. .. .                                                          |         |        | 1       |          |          |          |          |          |          |          |          |                | 1       |
| Otherwise, and not stated .. .. .                                                 |         |        | 1       | 2        | 1        |          | 2        | 1        |          |          |          |                | 7       |
| <b>Homicide</b> .. .. .                                                           | 1       |        |         |          |          |          |          |          |          |          |          |                | 1       |
| <b>Suicides—</b>                                                                  |         |        |         |          |          |          |          |          |          |          |          |                |         |
| By Poison .. .. .                                                                 |         |        |         | 1        |          |          | 1        |          |          |          |          |                | 2       |
| By Asphyxia .. .. .                                                               |         |        |         |          |          |          |          |          |          |          |          |                | 5       |
| By Hanging and Strangulation .. .. .                                              |         |        |         |          |          | 1        | 1        | 2        | 1        |          |          |                |         |
| By Drowning .. .. .                                                               |         |        |         |          |          |          |          |          |          |          |          |                |         |
| By Shooting .. .. .                                                               |         |        |         |          |          |          |          |          |          |          |          |                |         |
| By Cut or Stab .. .. .                                                            |         |        |         |          |          | 2        |          | 1        |          |          |          |                | 3       |
| By Precipitation from Elevated Places .. .. .                                     |         |        |         |          |          |          |          |          |          |          |          |                |         |
| By Crushing .. .. .                                                               |         |        |         |          |          |          |          |          |          |          |          |                |         |
| By other and Unspecified Methods .. .. .                                          |         |        |         |          |          |          |          |          |          |          |          |                |         |
| <b>Open verdict—found stabbed</b> .. .. .                                         |         |        |         |          | 1        |          |          |          |          |          |          |                | 1       |
| <b>Execution</b> .. .. .                                                          |         |        |         |          |          |          |          |          |          |          |          |                |         |
| <b>Sudden Death (Cause not Ascertained)</b> .. .. .                               |         |        |         |          |          |          |          |          |          |          |          |                |         |
| Other Ill-defined and not Specified Causes .. .. .                                |         |        |         |          | 1        |          | 1        |          | 2        |          |          |                | 4       |
| <b>TOTALS</b> .. .. .                                                             | 748     | 483    | 127     | 131      | 157      | 199      | 213      | 275      | 292      | 181      | 45       | 2              | 2853    |





TABLE IIIA.—CONTINUED.

| CAUSES OF DEATH.                                                       | Sunderland East. |         |         | Sunderland West. |         |         | Sunderland North. |         |         | Totals. |
|------------------------------------------------------------------------|------------------|---------|---------|------------------|---------|---------|-------------------|---------|---------|---------|
|                                                                        | Under 1.         | 1 to 5. | Over 5. | Under 1.         | 1 to 5. | Over 5. | Under 1.          | 1 to 5. | Over 5. |         |
| Premature Birth .. .. .                                                | 33               | ...     | ...     | 27               | ...     | ...     | 28                | ...     | ...     | 88      |
| Injury at Birth .. .. .                                                | 2                | ...     | ...     | 1                | ...     | ...     | 1                 | ...     | ...     | 4       |
| Debility at Birth .. .. .                                              | 40               | ...     | ...     | 19               | ...     | ...     | 23                | ...     | ...     | 82      |
| Atelectasis .. .. .                                                    | 1                | ...     | ...     | 2                | ...     | ...     | 4                 | ...     | ...     | 7       |
| Congenital Defects .. .. .                                             | 3                | ...     | ...     | 9                | ...     | ...     | 5                 | 1       | ...     | 18      |
| Want of Breast Milk .. .. .                                            | ...              | ...     | ...     | 3                | ...     | ...     | ...               | ...     | ...     | 3       |
| Atrophy, Debility, Marasmus .. .. .                                    | 19               | 8       | ...     | 24               | 1       | 1       | 14                | 2       | ...     | 69      |
| Dentition .. .. .                                                      | 4                | 6       | ...     | 5                | 5       | ...     | 5                 | 4       | ...     | 29      |
| Rickets .. .. .                                                        | 1                | 2       | ...     | ...              | 1       | ...     | 1                 | 1       | ...     | 6       |
| Old Age, Senile Decay .. .. .                                          | ...              | ...     | 72      | ...              | ...     | 33      | ...               | ...     | 37      | 142     |
| Convulsions .. .. .                                                    | 27               | 1       | ...     | 13               | 5       | 2       | 11                | 1       | ...     | 60      |
| Meningitis .. .. .                                                     | 13               | 15      | 3       | 4                | 6       | 2       | 9                 | 11      | 4       | 67      |
| Encephalitis .. .. .                                                   | ...              | ...     | ...     | ...              | ...     | ...     | ...               | ...     | ...     | ...     |
| Apoplexy .. .. .                                                       | ...              | ...     | 46      | ...              | ...     | 39      | ...               | ...     | 24      | 109     |
| Softening of the Brain .. .. .                                         | ...              | ...     | 3       | ...              | ...     | 1       | ...               | ...     | 6       | 10      |
| Hemiplegia, Brain Paralysis .. .. .                                    | ...              | ...     | 13      | ...              | ...     | 6       | ...               | ...     | 4       | 23      |
| General Paralysis of the Insane .. .. .                                | ...              | ...     | 4       | ...              | ...     | 10      | ...               | ...     | 3       | 17      |
| Other Forms of Insanity .. .. .                                        | ...              | ...     | 2       | ...              | ...     | 4       | ...               | ...     | 2       | 8       |
| Chorea .. .. .                                                         | ...              | ...     | ...     | ...              | ...     | ...     | ...               | ...     | ...     | ...     |
| Cerebral Tumour .. .. .                                                | ...              | ...     | 1       | ...              | ...     | 1       | ...               | ...     | ...     | 2       |
| Epilepsy .. .. .                                                       | ...              | ...     | 2       | ...              | ...     | 5       | ...               | ...     | 2       | 9       |
| Laryngismus Stridulus .. .. .                                          | ...              | ...     | ...     | 1                | ...     | 1       | ...               | ...     | ...     | 2       |
| Locomotor Ataxy .. .. .                                                | ...              | ...     | 2       | ...              | ...     | 1       | ...               | ...     | 1       | 4       |
| Paraplegia, Diseases of Spinal Cord .. .. .                            | ...              | ...     | 4       | ...              | ...     | 5       | ...               | ...     | 1       | 10      |
| Other and Ill-defined Diseases of Brain or Nervous System .. .. .      | ...              | 1       | 3       | ...              | ...     | 5       | ...               | ...     | 2       | 11      |
| Otitis, Otorrhœa .. .. .                                               | ...              | 1       | 1       | ...              | 1       | 2       | ...               | ...     | ...     | 5       |
| Diseases of Nose, Epistaxis .. .. .                                    | ...              | ...     | ...     | ...              | ...     | ...     | ...               | ...     | ...     | ...     |
| Diseases of Eye, Ophthalmia .. .. .                                    | ...              | ...     | ...     | ...              | ...     | ...     | ...               | ...     | ...     | ...     |
| Endocarditis, Valvular Diseases of Heart .. .. .                       | ...              | 1       | 9       | ...              | ...     | 26      | ...               | 1       | 12      | 49      |
| Pericarditis .. .. .                                                   | ...              | ...     | ...     | ...              | ...     | ...     | ...               | ...     | ...     | ...     |
| Hypertrophy of Heart .. .. .                                           | ...              | ...     | ...     | ...              | ...     | ...     | ...               | ...     | ...     | ...     |
| Angina Pectoris .. .. .                                                | ...              | ...     | ...     | ...              | ...     | 2       | ...               | ...     | ...     | 2       |
| Aneurism .. .. .                                                       | ...              | ...     | 1       | ...              | ...     | 1       | ...               | ...     | ...     | 2       |
| Senile Gangrene .. .. .                                                | ...              | ...     | 6       | ...              | ...     | 3       | ...               | ...     | 1       | 10      |
| Embolism, Thrombosis .. .. .                                           | ...              | ...     | ...     | ...              | ...     | 1       | ...               | ...     | ...     | 1       |
| Phlebitis .. .. .                                                      | ...              | ...     | 1       | ...              | ...     | ...     | ...               | ...     | ...     | 1       |
| Varicose Veins .. .. .                                                 | ...              | ...     | 1       | ...              | ...     | ...     | ...               | ...     | ...     | 1       |
| Other and Ill-defined Diseases of Heart and Circulatory System .. .. . | ...              | ...     | 63      | ...              | ...     | 64      | ...               | 1       | 39      | 167     |
| Laryngitis .. .. .                                                     | ...              | ...     | 1       | ...              | ...     | ...     | 1                 | ...     | ...     | 2       |
| Croup .. .. .                                                          | ...              | ...     | 2       | ...              | ...     | ...     | ...               | ...     | ...     | 2       |
| Other Diseases of Larynx and Trachea .. .. .                           | ...              | ...     | ...     | ...              | ...     | ...     | ...               | ...     | ...     | ...     |
| Acute Bronchitis .. .. .                                               | 70               | 37      | 52      | 22               | 12      | 30      | 16                | 7       | 13      | 259     |
| Chronic Bronchitis .. .. .                                             | ...              | ...     | 18      | ...              | ...     | 19      | ...               | ...     | 9       | 46      |
| Lobar Croupous Pneumonia .. .. .                                       | ...              | ...     | 1       | ...              | 1       | 18      | ...               | ...     | 10      | 30      |
| Lobular Broncho-Pneumonia .. .. .                                      | 10               | 17      | 5       | 9                | 21      | 5       | 21                | 11      | 1       | 100     |
| Pneumonia, form not stated .. .. .                                     | 7                | 14      | 50      | 4                | 6       | 32      | 4                 | 5       | 15      | 137     |
| Emphysema, Asthma .. .. .                                              | ...              | ...     | ...     | ...              | ...     | 4       | ...               | ...     | 1       | 5       |
| Plenrisy .. .. .                                                       | ...              | ...     | 5       | ...              | 1       | 1       | ...               | ...     | 2       | 9       |
| Other and Ill-defined Diseases of the Respiratory System .. .. .       | ...              | ...     | 1       | 1                | ...     | ...     | ...               | ...     | ...     | 2       |
| Diseases of Mouth and Annexa .. .. .                                   | ...              | 1       | 1       | ...              | 1       | ...     | 1                 | ...     | ...     | 4       |
| Diseases of Pharynx .. .. .                                            | ...              | ...     | ...     | ...              | ...     | ...     | ...               | ...     | ...     | ...     |
| Diseases of Oesophagus .. .. .                                         | ...              | ...     | 1       | ...              | ...     | ...     | ...               | ...     | ...     | 1       |
| Ulcer of Stomach and Duodenum .. .. .                                  | ...              | ...     | 5       | ...              | ...     | 2       | ...               | ...     | ...     | 7       |
| Other Diseases of Stomach .. .. .                                      | 16               | 1       | 6       | 1                | 1       | 4       | 8                 | ...     | ...     | 29      |
| Enteritis .. .. .                                                      | 8                | 8       | 8       | 4                | 1       | 2       | ...               | ...     | ...     | 39      |
| Appendicitis .. .. .                                                   | ...              | ...     | ...     | ...              | ...     | 6       | ...               | ...     | 2       | 8       |
| Obstruction of Intestine .. .. .                                       | 1                | 1       | 4       | ...              | ...     | 12      | ...               | ...     | 3       | 21      |
| Other Diseases of Intestine .. .. .                                    | ...              | ...     | ...     | ...              | ...     | 1       | 1                 | ...     | ...     | 2       |
| Cirrhosis of Liver .. .. .                                             | ...              | ...     | 6       | ...              | ...     | 4       | ...               | ...     | 4       | 14      |
| Other Diseases of Liver .. .. .                                        | ...              | ...     | 3       | 1                | ...     | ...     | ...               | ...     | ...     | 4       |
| Peritonitis .. .. .                                                    | ...              | ...     | 3       | ...              | ...     | ...     | ...               | ...     | ...     | 3       |
| Other and Ill-defined Diseases of Digestive System .. .. .             | ...              | ...     | ...     | 1                | ...     | ...     | ...               | ...     | ...     | 1       |



TABLE IIIA.—CONTINUED.

| CAUSES OF DEATH.                                                           | Sunderland East. |         |         | Sunderland West. |         |         | Sunderland North. |         |         | Total |
|----------------------------------------------------------------------------|------------------|---------|---------|------------------|---------|---------|-------------------|---------|---------|-------|
|                                                                            | Under 1.         | 1 to 5. | Over 5. | Under 1.         | 1 to 5. | Over 5. | Under 1.          | 1 to 5. | Over 5. |       |
| <b>Diseases of Lymphatic System and Ductless Glands</b> .. .. .            |                  |         | 2       |                  |         | 2       |                   |         | 1       | 5     |
| Acute Nephritis .. .. .                                                    |                  | 4       | 10      | 1                | 5       | 6       |                   | 2       | 1       | 29    |
| Bright's Disease .. .. .                                                   |                  | 2       | 10      |                  |         | 21      |                   |         | 13      | 46    |
| Calculus .. .. .                                                           |                  |         |         |                  |         |         |                   |         |         |       |
| Disease of Bladder and Prostate ..                                         |                  |         | 4       |                  |         | 3       |                   |         | 2       | 9     |
| Other and Ill-defined Diseases of the Urinary System .. .. .               |                  |         | 3       |                  |         | 2       |                   |         | 2       | 7     |
| <b>Diseases of Testis and Penis</b> .. .. .                                |                  |         |         |                  |         |         |                   |         |         |       |
| Diseases of Ovaries .. .. .                                                |                  |         |         |                  |         |         |                   |         |         |       |
| Diseases of Uterus and Appendages ..                                       |                  | 1       | 1       |                  |         | 1       |                   |         | 1       | 4     |
| Diseases of Vagina and External Genital Organs .. .. .                     |                  |         |         |                  |         |         |                   |         |         |       |
| Diseases of Breast .. .. .                                                 |                  |         |         |                  |         |         |                   |         |         |       |
| Abortion, Miscarriage .. .. .                                              |                  |         | 1       |                  |         |         |                   |         | 1       | 2     |
| Puerperal Mania .. .. .                                                    |                  |         |         |                  |         |         |                   |         |         |       |
| Puerperal Convulsions .. .. .                                              |                  |         |         |                  |         | 1       |                   |         |         | 1     |
| Placenta Previa, Flooding .. .. .                                          |                  |         | 1       |                  |         | 2       |                   |         |         | 3     |
| Puerperal Thrombosis .. .. .                                               |                  |         | 1       |                  |         |         |                   |         |         | 1     |
| Other and Ill-defined Accidents and Diseases of Pregnancy & Child Birth .. |                  |         | 3       |                  |         | 1       |                   |         | 1       | 5     |
| <b>Arthritis, Ostitis, Periostitis</b> .. .. .                             |                  |         |         |                  |         | 1       |                   |         |         | 1     |
| Other and Ill-defined Diseases of the Osseous System .. .. .               |                  |         |         |                  |         | 1       |                   |         | 2       | 3     |
| <b>Ulcer, Bedsore</b> .. .. .                                              |                  |         |         |                  |         |         |                   |         |         |       |
| Eczema .. .. .                                                             |                  |         |         | 1                |         |         |                   |         |         | 1     |
| Pemphigus .. .. .                                                          |                  |         |         |                  |         |         | 1                 |         |         | 1     |
| Other and Ill-defined Diseases of Integumentary System .. .. .             |                  |         | 2       |                  |         |         |                   |         |         | 2     |
| <b>Accident or Negligence—</b>                                             |                  |         |         |                  |         |         |                   |         |         |       |
| In Mines and Quarries .. .. .                                              |                  |         |         |                  |         |         |                   |         | 2       | 2     |
| In Vehicular Traffic .. .. .                                               |                  |         |         |                  | 1       | 4       |                   |         |         | 5     |
| On Railways .. .. .                                                        |                  |         |         |                  |         | 2       |                   |         |         | 2     |
| On Ships, Boats, and Docks (excluding Drowning) .. .. .                    |                  |         | 4       |                  |         |         |                   | 1       | 2       | 7     |
| In Building Operations .. .. .                                             |                  |         | 1       |                  |         |         |                   |         |         | 1     |
| By Machinery .. .. .                                                       |                  |         |         |                  |         |         |                   |         | 1       | 1     |
| By Weapons and Implements .. .. .                                          |                  |         |         |                  |         |         |                   |         |         |       |
| Burns and Scalds .. .. .                                                   |                  | 3       | 2       | 1                | 3       | 3       |                   | 1       | 1       | 14    |
| Poisons, Poisonous Vapours .. .. .                                         |                  | 1       | 1       |                  |         |         |                   |         | 1       | 3     |
| Surgical Narcosis .. .. .                                                  |                  |         | 1       |                  |         |         |                   |         |         | 1     |
| Effects of Electric Shock .. .. .                                          |                  |         |         |                  |         |         |                   |         |         |       |
| Corrosion by Chemicals .. .. .                                             |                  |         |         |                  |         |         |                   |         |         |       |
| Drowning .. .. .                                                           |                  | 1       | 5       |                  |         | 1       |                   |         | 3       | 10    |
| Suffocation, Overlaid in Bed .. .. .                                       |                  |         |         | 4                |         |         |                   |         |         | 4     |
| Suffocation, otherwise .. .. .                                             |                  |         |         |                  |         |         |                   |         | 2       | 2     |
| Falls, not Specified .. .. .                                               |                  |         | 12      |                  |         | 8       |                   |         | 8       | 28    |
| Weather Agencies .. .. .                                                   |                  |         |         |                  |         |         |                   |         | 1       | 1     |
| Otherwise, and not stated .. .. .                                          |                  |         | 2       |                  |         | 3       |                   |         | 2       | 7     |
| <b>Homicide</b> .. .. .                                                    |                  |         |         | 1                |         |         |                   |         |         | 1     |
| <b>Suicides—</b>                                                           |                  |         |         |                  |         |         |                   |         |         |       |
| By Poison .. .. .                                                          |                  |         | 1       |                  |         |         |                   |         | 1       | 2     |
| By Asphyxia .. .. .                                                        |                  |         |         |                  |         |         |                   |         |         |       |
| By Hanging and Strangulation ..                                            |                  |         | 3       |                  |         | 1       |                   |         | 1       | 5     |
| By Drowning .. .. .                                                        |                  |         |         |                  |         |         |                   |         |         |       |
| By Shooting .. .. .                                                        |                  |         |         |                  |         |         |                   |         |         |       |
| By Cut or Stab .. .. .                                                     |                  |         |         |                  |         | 2       |                   |         | 1       | 3     |
| By Precipitation from Elevated Places ..                                   |                  |         |         |                  |         |         |                   |         |         |       |
| By Crushing .. .. .                                                        |                  |         |         |                  |         |         |                   |         |         |       |
| By Other and Unspecified Methods ..                                        |                  |         |         |                  |         |         |                   |         |         |       |
| <b>Open verdict—found stabbed</b> .. .. .                                  |                  |         |         |                  |         | 1       |                   |         |         | 1     |
| <b>Execution</b> .. .. .                                                   |                  |         |         |                  |         |         |                   |         |         |       |
| <b>Sudden Death (Cause not Ascertained).</b> ..                            |                  |         |         |                  |         |         |                   |         |         |       |
| <b>Other Ill-defined and not specified causes</b> ..                       |                  |         | 1       |                  |         | 3       |                   |         |         | 4     |
| <b>TOTALS</b> .. .. .                                                      | 320              | 207     | 685     | 235              | 167     | 594     | 193               | 109     | 343     | 2853  |





TABLE IV.—CONTINUED.

| Street.                  | CASES NOTIFIED |                   |                  |                     |                   |             | Removed to<br>Sanatorium. | Deaths. | DEATHS FROM |                    |            |
|--------------------------|----------------|-------------------|------------------|---------------------|-------------------|-------------|---------------------------|---------|-------------|--------------------|------------|
|                          | Smallpox.      | Enteric<br>Fever. | Typhus<br>Fever. | Continued<br>Fever. | Scarlet<br>Fever. | Diphtheria. |                           |         | Measles.    | Whooping<br>Cough. | Diarrhoea. |
| Hartley street.....      | ...            | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...        |
| Hastings street .....    | ...            | ...               | ...              | ...                 | 1                 | 2           | 1                         | ...     | ...         | ...                | ...        |
| Hedworth street.....     | ...            | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Hedworth terrace .....   | ...            | ...               | ...              | ...                 | 3                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Hendon road .....        | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Hendon street.....       | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | 1          |
| Henry street .....       | ...            | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | 1                  | 2          |
| Henry street East .....  | ...            | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | 1          |
| High street .....        | ...            | 2                 | ...              | ...                 | ...               | 1           | ...                       | 3       | ...         | ...                | 2          |
| High street West .....   | ...            | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...        |
| Hill street ..           | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | 1           | ...                | ...        |
| Howick street.....       | ...            | 1                 | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...        |
| Hudson road .....        | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Kensington terrace ..... | ...            | ...               | ...              | 1                   | ...               | ...         | ...                       | ...     | ...         | ...                | ...        |
| Laura street .....       | ...            | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Lawrence street .....    | ...            | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...        |
| Lodge terrace .....      | ...            | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | 1           | ...                | 1          |
| Lucknow street .....     | ...            | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | ...                | ...        |
| Mabel terrace .....      | ...            | ...               | ...              | ...                 | 2                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Mainsforth terrace ..... | ...            | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Maling's rigg .....      | ...            | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |
| Manilla street .....     | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Marion street .....      | ...            | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...        |
| Marshall street .....    | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Moorgate street .....    | ...            | 1                 | ...              | ...                 | ...               | ...         | 1                         | 1       | ...         | ...                | ...        |
| Moor street.....         | ...            | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | 1          |
| Mordey street. .         | ...            | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 2           | ...                | 1          |
| Nelson street .....      | ...            | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Nesham place .....       | ...            | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| New Grey street..        | ...            | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | 2           | ...                | 3          |
| Nile street .....        | ...            | 2                 | ...              | ...                 | 1                 | ...         | 3                         | ...     | ...         | ...                | ...        |
| Noble street .....       | ...            | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | 1          |
| Norman street.....       | 1              | 1                 | ...              | ...                 | ...               | ...         | 2                         | ...     | ...         | ...                | ...        |
| Northcote avenue .....   | ...            | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | ...                | ...        |
| Norfolk street.....      | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| North Moor street.....   | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Northumberland place ..  | ...            | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Numbers garth... ..      | ...            | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | 1           | ...                | ...        |
| Oaks, The .....          | ...            | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Oaks West, The .....     | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Old Arcade, The.....     | ...            | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | 1                  | ...        |
| Old Mill road .....      | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Page street .....        | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | 2           | ...                | 1          |
| Parade .....             | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Pemberton street .....   | ...            | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Regent's terrace.....    | ...            | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Ridley terrace.....      | ...            | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | ...                | ...        |
| Robinson street .....    | ...            | ...               | ...              | ...                 | 2                 | ...         | 1                         | ...     | ...         | ...                | ...        |

TABLE IV.—CONTINUED.

| Street.                  | CASES NOTIFIED. |                   |                  |                     |                   |             | Removed<br>to Sanatorium. | Deaths. | DEATHS FROM |                    |           |
|--------------------------|-----------------|-------------------|------------------|---------------------|-------------------|-------------|---------------------------|---------|-------------|--------------------|-----------|
|                          | Smallpox.       | Enteric<br>Fever. | Typhus<br>Fever. | Continued<br>Fever. | Scarlet<br>Fever. | Diphtheria. |                           |         | Measles.    | Whooping<br>Cough. | Diarrhea. |
| Robinson terrace .....   | ...             | 3                 | ...              | ...                 | 1                 | 1           | 3                         | 2       | ...         | 1                  | 2         |
| Rosalie terrace .....    | ...             | ...               | ...              | ...                 | 2                 | ...         | 2                         | ...     | ...         | ...                | ...       |
| Salem hill South.....    | ...             | ...               | ...              | ...                 | 2                 | ...         | ...                       | ...     | ...         | ...                | ...       |
| Salisbury street .....   | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...       |
| Sans street .....        | ...             | 2                 | ...              | ...                 | 1                 | ...         | 3                         | ...     | 1           | ...                | ...       |
| Silver street .....      | 1               | 1                 | ...              | ...                 | ...               | ...         | 2                         | ...     | 5           | ...                | ...       |
| South Durham street ...  | ...             | 4                 | ...              | ...                 | ...               | ...         | 2                         | 1       | 1           | ...                | ...       |
| Spring Garden lane ..... | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| St. Bede's terrace ..... | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | ...     | ...         | ...                | ...       |
| St. Leonard street.....  | ...             | 1                 | ...              | ...                 | 7                 | 1           | 8                         | ...     | ...         | ...                | ...       |
| St. Vincent street ..... | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | 1       | ...         | ...                | ...       |
| Suffolk street .....     | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| Sussex street .....      | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...       |
| Tatham street .....      | ...             | ...               | ...              | ...                 | 3                 | ...         | ...                       | ...     | ...         | ...                | ...       |
| Tees street .....        | ...             | 3                 | ...              | ...                 | ...               | 1           | 3                         | 1       | 1           | ...                | 1         |
| Thomas street.....       | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | ...       |
| Tower street .....       | ...             | ...               | ...              | ...                 | 5                 | ...         | 1                         | ...     | ...         | ...                | ...       |
| Tower street West.....   | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...       |
| Trinity place .....      | ...             | ...               | ...              | ...                 | 2                 | ...         | 2                         | ...     | ...         | ...                | ...       |
| Tweed street .....       | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| Villette mount .....     | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | 1           | ...                | ...       |
| Villette road .....      | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...       |
| Villiers street .....    | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| Vine street ..           | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | 1           | ...                | 2         |
| Wall street .....        | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...       |
| Ward street.....         | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...       |
| Warren street.....       | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 2         |
| Water lane .....         | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...       |
| Wear street.....         | ...             | 1                 | ...              | ...                 | 4                 | ...         | 1                         | 1       | ...         | ...                | 1         |
| West Wear street .....   | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | ...                | ...       |
| Whitehouse crescent..... | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...       |
| Winchester terrace.....  | ...             | ...               | ...              | ...                 | 2                 | ...         | 2                         | ...     | ...         | ...                | ...       |
| Winifred terrace.....    | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| Woodbine street..        | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | 1           | ...                | ...       |
| Zion street .....        | ...             | 1                 | ...              | ...                 | 1                 | ...         | 2                         | ...     | ...         | ...                | ...       |



TABLE IV — CONTINUED.

## SUNDERLAND WEST.

| Street.                    | CASES NOTIFIED. |                   |                  |                     |                   |             | Removed to<br>Sanatorium. | Deaths. | DEATHS FROM |                    |            |
|----------------------------|-----------------|-------------------|------------------|---------------------|-------------------|-------------|---------------------------|---------|-------------|--------------------|------------|
|                            | Smallpox.       | Enteric<br>Fever. | Typhus<br>Fever. | Continued<br>Fever. | Scarlet<br>Fever. | Diphtheria. |                           |         | Measles.    | Whooping<br>Cough. | Diarrhoea. |
| Albert street .....        | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Alderson street .....      | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | 1          |
| Alexander terrace .....    | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Alfred street .....        | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |
| Argyle square .....        | ...             | ...               | ...              | ...                 | 2                 | 3           | ...                       | ...     | ...         | ...                | ...        |
| Arlington street .....     | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |
| Ashbrooke mount .....      | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...        |
| Ashbrooke road .....       | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Australia street .....     | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | ...     | ...         | ...                | ...        |
| Avenue, The .....          | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Aylmer street .....        | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...        |
| Ayre's Quay street.....    | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Bancroft terrace.....      | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...        |
| Barnard street .....       | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | 1       | ...         | ...                | ...        |
| Beach street .....         | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |
| Beechville street.....     | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...        |
| Belle Vue park .....       | ...             | 2                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | ...                | ...        |
| Bell street .....          | ...             | 2                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | 1                  | ...        |
| Belvedere road .....       | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Biss street ..             | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | 1          |
| Brady street .....         | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Brougham street.....       | ...             | ...               | ...              | ...                 | 3                 | 1           | 3                         | ...     | ...         | 1                  | 1          |
| Broxbourne terrace ..      | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | ...     | ...         | ...                | ...        |
| Carol street... ..         | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Carter street .....        | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | 1          |
| Castle street.....         | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Catherine street .....     | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | ...     | ...         | ...                | ...        |
| Catherine street North ... | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Chatsworth street .....    | ...             | ...               | ...              | ...                 | ...               | 3           | ...                       | 1       | ...         | ...                | ...        |
| Chester road.....          | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |
| Chester street .....       | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Chester terrace North ...  | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | 1       | ...         | ...                | ...        |
| Church street West.....    | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...        |
| Cirencester street .....   | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...        |

TABLE IV.—CONTINUED.

| Street.                   | CASES NOTIFIED. |                |               |                  |                |             | Deaths. | DEATHS FROM |                 |            |
|---------------------------|-----------------|----------------|---------------|------------------|----------------|-------------|---------|-------------|-----------------|------------|
|                           | Smallpox.       | Enteric Fever. | Typhus Fever. | Continued Fever. | Scarlet Fever. | Diphtheria. |         | Measles.    | Whooping Cough. | Diarrhoea. |
| Claremont terrace .....   | ...             | ...            | ...           | ...              | 1              | ...         | ...     | ...         | ...             | ...        |
| Cleveland road.....       | ...             | 1              | ...           | ...              | ...            | 2           | ...     | ...         | ...             | 1          |
| Close street .....        | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | 1               | ...        |
| Colchester terrace .....  | ...             | ...            | ...           | ...              | 1              | 2           | ...     | ...         | ...             | ...        |
| Crescent row .....        | ...             | 1              | ...           | ...              | 1              | ...         | 2       | ...         | ...             | 1          |
| Cresswell terrace.....    | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | ...        |
| Croft avenue.....         | ...             | ...            | ...           | ...              | ...            | 2           | ...     | 1           | ...             | ...        |
| Cromwell street .....     | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | 1               | ...        |
| Crow street .....         | ...             | ...            | ...           | ...              | ...            | ...         | ...     | ...         | 1               | ...        |
| Crowtree terrace .....    | ...             | ...            | ...           | ...              | 1              | ...         | 1       | ...         | ...             | 1          |
| Deptford road .....       | ...             | ...            | ...           | ...              | ...            | ...         | ...     | ...         | ...             | 1          |
| Deptford terrace .....    | ...             | ...            | ...           | ...              | ...            | 1           | ...     | 1           | ...             | ...        |
| Ditchburn terrace .....   | ...             | ...            | ...           | ...              | 1              | ...         | ...     | ...         | 2               | 1          |
| Duncan street.....        | ...             | ...            | ...           | ...              | ...            | 1           | ...     | 1           | ...             | ...        |
| Eastfield street .....    | ...             | ...            | ...           | ...              | ...            | 2           | ...     | ...         | ...             | ...        |
| East Moor road .....      | ...             | ...            | ...           | ...              | ...            | ...         | ...     | 1           | ...             | ...        |
| Edwin street ..           | ...             | ...            | ...           | ...              | 1              | ...         | 1       | ...         | ...             | 1          |
| Eldon street.....         | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | ...        |
| Elgin street .....        | ...             | ...            | ...           | ...              | ...            | ...         | ...     | 1           | ...             | 1          |
| Elmwood street .....      | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | ...        |
| Ewesley road .....        | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | ...        |
| Exhibition terrace .....  | ...             | ...            | ...           | ...              | ...            | 2           | ...     | ...         | ...             | ...        |
| Farringdon row .....      | ...             | ...            | ...           | ...              | ...            | ...         | ...     | 1           | 1               | 1          |
| Florida street .....      | ...             | 1              | ...           | ...              | ...            | ...         | 1       | ...         | ...             | 1          |
| Fontaine road.....        | ...             | ...            | ...           | ...              | ...            | ...         | ...     | 1           | ...             | ...        |
| Fordland place .....      | ...             | ...            | ...           | ...              | 1              | ...         | 1       | ...         | ...             | ...        |
| Ford terrace.....         | ...             | 1              | ...           | ...              | ...            | ...         | ...     | ...         | ...             | ...        |
| Fox street.....           | ...             | ...            | ...           | ...              | ...            | ...         | ...     | 1           | ...             | ...        |
| Garnet street .....       | ...             | 1              | ...           | ...              | ...            | ...         | 1       | ...         | ...             | ...        |
| General Gerdon terrace... | ...             | 1              | ...           | ...              | 1              | 2           | ...     | 1           | ...             | ...        |
| Gill Bridge avenue .....  | ...             | 1              | ...           | ...              | ...            | ...         | 1       | ...         | ...             | ...        |
| Glebe street.....         | ...             | ...            | ...           | ...              | ...            | 2           | ...     | 1           | ...             | ...        |
| Grace street ..           | ...             | ...            | ...           | ...              | ...            | ...         | ...     | 1           | ...             | ...        |
| Granville street .....    | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | ...        |
| Greta terrace .....       | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | ...        |
| Grindon terrace .....     | ...             | ...            | ...           | ...              | ...            | 2           | ...     | 1           | ...             | ...        |
| Handel street .....       | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | ...        |
| Hanover place.....        | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | ...        |
| Harlow street .....       | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | 1          |
| Harrison street .....     | ...             | ...            | ...           | ...              | ...            | ...         | ...     | ...         | 1               | ...        |
| Hartley's buildings ..... | ...             | ...            | ...           | ...              | 1              | 1           | ...     | 1           | 2               | ...        |
| Havelock terrace.....     | ...             | 1              | ...           | ...              | ...            | ...         | ...     | ...         | ...             | ...        |
| Hawarden crescent.....    | ...             | ...            | ...           | ...              | ...            | 2           | ...     | ...         | ...             | 1          |
| Hawthorn street South...  | ...             | ...            | ...           | ...              | ...            | 1           | ...     | ...         | ...             | ...        |
| Hedley street .....       | ...             | 1              | ...           | ...              | 2              | 1           | 2       | 2           | ...             | ...        |
| Hillfield terrace .....   | ...             | 1              | ...           | ...              | ...            | ...         | 1       | ...         | ...             | ...        |
| Hope street.....          | ...             | ...            | ...           | ...              | 1              | ...         | ...     | ...         | 2               | 3          |
| Hopper street .....       | ...             | 1              | ...           | ...              | ...            | ...         | 1       | 1           | ...             | ...        |

TABLE IV.—CONTINUED.

| Street.                    | CASES NOTIFIED. |                   |                  |                     |                   |             | Removed to<br>Sanatorium. | Deaths. | DEATHS FROM |                    |            |
|----------------------------|-----------------|-------------------|------------------|---------------------|-------------------|-------------|---------------------------|---------|-------------|--------------------|------------|
|                            | Smallpox.       | Enteric<br>Fever. | Typhus<br>Fever. | Continued<br>Fever. | Scarlet<br>Fever. | Diphtheria. |                           |         | Measles.    | Whooping<br>Cough. | Diarrhoea. |
| Hort street .....          | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |
| Houghton street.....       | ...             | ...               | ...              | ...                 | 1                 | 3           | ...                       | 1       | 1           | ...                | ...        |
| Howarth street .....       | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...        |
| Hutton street .....        | ...             | ...               | ...              | ...                 | 2                 | ...         | 2                         | ...     | ...         | ...                | ...        |
| Hylton road.....           | ...             | ...               | ...              | ...                 | 2                 | ...         | 1                         | ...     | ...         | ...                | ...        |
| Hylton street .....        | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Durham road .....          | ...             | 3                 | ...              | ...                 | 3                 | 1           | ...                       | ...     | ...         | ...                | ...        |
| Jacques street.....        | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Jobling street .....       | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Johnson street .....       | ...             | 1                 | ...              | ...                 | ...               | 1           | 1                         | 1       | ...         | ...                | 1          |
| John street West .....     | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 2          |
| Kimberley street.....      | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Kingslsy street .....      | ...             | 2                 | ...              | ...                 | ...               | ...         | 2                         | ...     | ...         | ...                | ...        |
| King street .....          | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |
| Kitchener street .....     | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Lincoln street .....       | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Lisburn terrace .....      | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | 1       | ...         | ...                | ...        |
| Lister street.....         | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | 1       | 1           | 1                  | ...        |
| Mafeking street .....      | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Margaret Alice street..... | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | ...                | 1          |
| Matamba terrace .....      | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | ...     | 1           | ...                | ...        |
| Matlock street.....        | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | 1                  | 1          |
| May street .....           | ...             | ...               | ...              | ...                 | 7                 | 1           | 4                         | ...     | ...         | ...                | ...        |
| Milburn street .....       | ...             | 2                 | ...              | ...                 | ...               | ...         | 2                         | ...     | 1           | ...                | ...        |
| Mortimer street .....      | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | 1          |
| Naylor street .....        | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | ...                | ...        |
| Neville street .....       | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Nora street .....          | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | 1       | ...         | ...                | ...        |
| North Hedley street .....  | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | 1                  | ...        |
| Northumberland street ...  | ...             | 1                 | ...              | ...                 | 1                 | ...         | 2                         | ...     | 1           | 1                  | ...        |
| Oaklands terrace.....      | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...        |
| Offerton street.....       | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Ormonde street .....       | ...             | ...               | ...              | ...                 | 3                 | 6           | 1                         | ...     | ...         | ...                | ...        |
| Otto terrace.....          | ...             | ...               | ...              | ...                 | 1                 | 1           | ...                       | ...     | ...         | ...                | ...        |
| Pallion road .....         | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Peacock street.....        | ...             | 1                 | ...              | ...                 | 1                 | ...         | 2                         | ...     | ...         | ...                | ...        |
| Peacock street West .....  | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | 1                  | 1          |
| Pensher street.....        | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | 1       | ...         | ...                | 1          |
| Queen's crescent.....      | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | ...     | ...         | ...                | ...        |
| Queen street West .....    | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Raby street .....          | ...             | ...               | ...              | ...                 | 2                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Railway row.....           | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | 1          |
| Retreat, The.....          | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | ...        |
| Reynoldson street .....    | ...             | ...               | ...              | ...                 | 1                 | 1           | ...                       | 1       | ...         | ...                | ...        |
| Robert street .....        | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Romford street .....       | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Ropery road.....           | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |



TABLE IV.—Continued.

| Street.                    | CASES NOTIFIED. |                   |                  |                     |                   |             | Removed to<br>Sanatorium. | Deaths. | DEATHS FROM |                    |           |
|----------------------------|-----------------|-------------------|------------------|---------------------|-------------------|-------------|---------------------------|---------|-------------|--------------------|-----------|
|                            | Smallpox.       | Enteric<br>Fever. | Typhus<br>Fever. | Continued<br>Fever. | Scarlet<br>Fever. | Diphtheria. |                           |         | Measles.    | Whooping<br>Cough. | Diarrhea. |
| Rose street .....          | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 2         |
| Rosslyn terrace .....      | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...       |
| Royalty, The .....         | ...             | ...               | ...              | ...                 | ...               | 4           | ...                       | ...     | ...         | ...                | ...       |
| Rutland street.....        | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | 1       | 2           | ...                | ...       |
| Ryhope road .....          | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...       |
| Shakespeare terrace .....  | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | ...     | ...         | ...                | ...       |
| Silksworth row .....       | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | 1         |
| Simpson street.....        | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 2         |
| Slater street.....         | ...             | 6                 | ...              | ...                 | ...               | ...         | 6                         | ...     | ...         | ...                | ...       |
| Sorley street .....        | ...             | 1                 | ...              | ...                 | 1                 | 1           | 1                         | ...     | 2           | ...                | ...       |
| South Hill crescent.....   | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...       |
| South Johnson street.. ... | ...             | 3                 | ...              | ...                 | 2                 | 3           | 3                         | ...     | 3           | ...                | 4         |
| South street .....         | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...       |
| Stanley street .....       | ...             | ...               | ...              | ...                 | 2                 | ...         | 1                         | ...     | ...         | ...                | ...       |
| St. Luke's cross .....     | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| St. Luke's road .....      | ...             | ...               | ...              | ...                 | ...               | 1           | 1                         | ...     | ...         | ...                | 1         |
| St. Luke's terrace .....   | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...       |
| St. Mark's road .....      | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | 1       | ...         | ...                | ...       |
| St. Mark's road North ...  | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | 2       | ...         | ...                | ...       |
| Stanhope street .....      | ...             | 2                 | ...              | ...                 | ...               | ...         | 2                         | ...     | ...         | ...                | ...       |
| Stirling street .....      | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | ...       |
| Stratfield street .....    | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...       |
| Sydenham place .....       | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| Sydenham terrace .....     | ...             | ...               | ...              | ...                 | 3                 | 1           | 2                         | ...     | ...         | ...                | ...       |
| Tamerton street .....      | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...       |
| Teb street.....            | ...             | 1                 | ...              | ...                 | 2                 | ...         | ...                       | ...     | ...         | ...                | ...       |
| Thornhill gardens .....    | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | ...     | ...         | ...                | ...       |
| Thornhill park.....        | ...             | ...               | ...              | ...                 | 1                 | 5           | ...                       | 1       | ...         | ...                | ...       |
| Trimdon street.....        | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | 2         |
| Trimdon street West.....   | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| Tunstall road .....        | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...       |
| Vale street .....          | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | ...                | ...       |
| Violet street.....         | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...       |
| Walworth street .....      | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...       |
| Warrennes street .....     | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...       |
| Water street .....         | ...             | 2                 | ...              | ...                 | ...               | ...         | 2                         | ...     | ...         | ...                | ...       |
| Waterworks road .....      | ...             | 1                 | ...              | ...                 | ...               | ...         | 1                         | ...     | ...         | ...                | ...       |
| Watson's lane ...          | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | 1         |
| Wellington lane .....      | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...       |
| Well street .....          | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | ...       |
| Wentworth terrace.....     | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...       |
| Westbury street .....      | ...             | 1                 | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | 1                  | ...       |
| West lawn .....            | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | ...       |
| West street .....          | ...             | 1                 | ...              | ...                 | ...               | 1           | 1                         | ...     | ...         | ...                | ...       |
| Whitehall terrace .....    | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...       |
| Wilfred street .....       | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| Williams street .....      | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 2           | ...                | ...       |
| Willmore street .....      | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1         |
| Wilson street .....        | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...       |
| Woodbine terrace .....     | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | ...       |
| Worcester terrace .....    | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...       |



TABLE IV.—CONTINUED.

| Street.                   | CASES NOTIFIED. |                   |                  |                     |                   |             | Removed to<br>Sanatorium. | Deaths. | DEATHS FROM |                    |            |
|---------------------------|-----------------|-------------------|------------------|---------------------|-------------------|-------------|---------------------------|---------|-------------|--------------------|------------|
|                           | Smallpox.       | Enteric<br>Fever. | Typhus<br>Fever. | Continued<br>Fever. | Scarlet<br>Fever. | Diphtheria. |                           |         | Measles.    | Whooping<br>Cough. | Diarrhoea. |
| North Bridge street ..... | ...             | ..                | ..               | ..                  | ..                | 1           | ...                       | ...     | ...         | ...                | ...        |
| North Eglinton street ... | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | 1           | ...                | ...        |
| North quay .....          | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Osborne street.....       | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |
| Pilgrim street .....      | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | ...                | 1          |
| Portobello lane .....     | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | ...         | 1                  | 1          |
| Richmond street.....      | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | 2          |
| Ripon street.....         | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | ...        |
| Roker avenue .....        | ...             | 1                 | ...              | ...                 | ...               | 4           | ...                       | ...     | ...         | 1                  | ...        |
| Roker Baths road .....    | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ...     | 1           | ...                | ...        |
| Roker Park road .....     | ...             | ...               | ...              | ...                 | ...               | 2           | ...                       | ...     | ...         | ...                | ...        |
| Roker terrace .....       | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Rothsay street.....       | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | ...     | 3           | ...                | ...        |
| Sandringham road .....    | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |
| Sheepfolds road .....     | ...             | 1                 | ...              | ...                 | ..                | ...         | 1                         | ...     | ...         | ...                | ...        |
| Side Cliff road.....      | ...             | 1                 | ...              | ...                 | ...               | ...         | ...                       | 1       | ...         | ...                | ...        |
| Stranton terrace.....     | ...             | ...               | ...              | ...                 | 1                 | ...         | 1                         | ...     | ...         | ...                | ...        |
| Thomas street.....        | ...             | 1                 | ...              | ...                 | 2                 | ...         | 2                         | ...     | ...         | ...                | ...        |
| Victor street.....        | ...             | ...               | ...              | ...                 | ...               | 3           | ...                       | 1       | 3           | ...                | 3          |
| Warwick street .....      | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Wayman street .....       | ...             | 1                 | ..               | ...                 | 1                 | ...         | ...                       | ...     | ...         | ...                | 2          |
| Whickham street .....     | ...             | ...               | ...              | ...                 | 1                 | ...         | ...                       | ...     | ...         | 1                  | ...        |
| Whitburn street ... .     | ...             | ...               | ...              | ...                 | 1                 | 1           | ...                       | ...     | ...         | ...                | ...        |
| Williamson terrace.....   | ...             | ...               | ...              | ...                 | ...               | ...         | ...                       | ..      | 1           | ...                | ...        |
| Wilson street North ..... | ...             | 1                 | ...              | ...                 | ...               | 1           | ...                       | 1       | ..          | ...                | ...        |
| Zetland street.....       | ...             | 2                 | ...              | ...                 | 1                 | ...         | 2                         | ...     | ...         | 1                  | ...        |
| Zion terrace.....         | ...             | ...               | ...              | ...                 | ...               | 1           | ...                       | ...     | ...         | ...                | ...        |



TABLE V.

Showing the STATE of VACCINATION in the entire Districts of the Sunderland Union for the Year ending December, 1904, and for the Ten preceding Years.

(AS FURNISHED BY THE VACCINATION OFFICERS.)

| Year.                                    | Births Registered. | Total Vaccinated. |                | Postponed by Medical Authority. | Died previous to Vaccination. | Removal to places unknown or other Unions. | Certificates of (Conscientious Objection) Exemption. |
|------------------------------------------|--------------------|-------------------|----------------|---------------------------------|-------------------------------|--------------------------------------------|------------------------------------------------------|
|                                          |                    | Succ.             | Insus-ceptible |                                 |                               |                                            |                                                      |
| 1894                                     | 5927               | 4453              | 17             | 127                             | 722                           | 608                                        |                                                      |
| 1895                                     | 6091               | 4523              | 23             | 180                             | 762                           | 603                                        |                                                      |
| 1896                                     | 6015               | 4307              | 21             | 180                             | 699                           | 808                                        |                                                      |
| 1897                                     | 6202               | 4606              | 28             | 182                             | 689                           | 697                                        |                                                      |
| 1898                                     | 6352               | 4355              | 27             | 161                             | 974                           | 835                                        |                                                      |
| 1899                                     | 6501               | 4706              | 34             | 173                             | 924                           | 629                                        | 35                                                   |
| 1900                                     | 6651               | 4770              | 18             | 280                             | 909                           | 625                                        | 49                                                   |
| 1901                                     | 6622               | 4967              | 26             | 208                             | 855                           | 527                                        | 39                                                   |
| 1902                                     | 6700               | 5008              | 30             | 160                             | 747                           | 715                                        | 40                                                   |
| 1903                                     | 6743               | 5508              | 22             | 102                             | 802                           | 267                                        | 42                                                   |
| Average for }<br>10 Years, }<br>1893-02. | 6380               | 4720              | 25             | 175                             | 808                           | 631                                        | ...                                                  |
| 1904                                     | 6737               | 5551              | 28             | 93                              | 834                           | 189                                        | 32                                                   |

LOCAL GOVERNMENT BOARD TABLE III.

Showing the Cases of Infectious Disease notified during the Year 1905.

| NOTIFIABLE DISEASE.    | CASES NOTIFIED IN WHOLE DISTRICT. |                |         |          |           |           |                 | TOTAL CASES NOTIFIED IN EACH LOCALITY. |                  |                   | No. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY. |                  |                   |
|------------------------|-----------------------------------|----------------|---------|----------|-----------|-----------|-----------------|----------------------------------------|------------------|-------------------|------------------------------------------------------|------------------|-------------------|
|                        | At all Ages.                      | At Ages—Years. |         |          |           |           |                 | Sunderland East.                       | Sunderland West. | Sunderland North. | Sunderland East.                                     | Sunderland West. | Sunderland North. |
|                        |                                   | Under 1.       | 1 to 5. | 5 to 15. | 15 to 25. | 25 to 65. | 65 and upwards. |                                        |                  |                   |                                                      |                  |                   |
| Small-pox .....        | 2                                 | ...            | ...     | ...      | ...       | 2         | ...             | 2                                      | ...              | ...               | ...                                                  | ...              | ...               |
| Cholera .....          | ...                               | ...            | ...     | ...      | ...       | ...       | ...             | ...                                    | ...              | ...               | ...                                                  | ...              | ...               |
| Diphtheria .....       | 159                               | 1              | 49      | 80       | 17        | 12        | ...             | 14                                     | 109              | 36                | ...                                                  | ...              | ...               |
| Membranous croup ..... | 11                                | 1              | 9       | 1        | ...       | ...       | ...             | 3                                      | 3                | 5                 | ...                                                  | ...              | ...               |
| Erysipelas .....       | 105                               | 4              | 3       | 11       | 20        | 60        | 7               | 36                                     | 42               | 27                | ...                                                  | ...              | ...               |
| Scarlet fever .....    | 184                               | 4              | 77      | 94       | 6         | 3         | ...             | 77                                     | 71               | 36                | 35                                                   | 38               | 15                |
| Typhus fever .....     | ...                               | ...            | ...     | ...      | ...       | ...       | ...             | ...                                    | ...              | ...               | ...                                                  | ...              | ...               |
| Enteric fever .....    | 139                               | ...            | 11      | 43       | 36        | 48        | 1               | 46                                     | 60               | 33                | 34                                                   | 38               | 20                |
| Relapsing fever .....  | ...                               | ...            | ...     | ...      | ...       | ...       | ...             | ...                                    | ...              | ...               | ...                                                  | ...              | ...               |
| Continued fever .....  | 6                                 | ...            | 2       | 1        | 2         | 1         | ...             | 2                                      | ...              | 4                 | ...                                                  | ...              | 1                 |
| Puerperal fever .....  | 12                                | ...            | ...     | ...      | 2         | 10        | ...             | 2                                      | 4                | 6                 | ...                                                  | ...              | ...               |
| Plague .....           | ...                               | ...            | ...     | ...      | ...       | ...       | ...             | ...                                    | ...              | ...               | ...                                                  | ...              | ...               |
| Totals .....           | 618                               | 10             | 151     | 230      | 83        | 136       | 8               | 182                                    | 289              | 147               | 71                                                   | 76               | 35                |

## LOCAL GOVERNMENT BOARD TABLE IV.

Showing Causes of and Ages at Death during Year 1905.

| Causes of Death.                            | Deaths in whole District at Subjoined Ages. |          |                |                 |                  |                  |                 | Deaths in Localities (at all ages). |                  |                   | Deaths in Public Institutions. |
|---------------------------------------------|---------------------------------------------|----------|----------------|-----------------|------------------|------------------|-----------------|-------------------------------------|------------------|-------------------|--------------------------------|
|                                             | All Ages.                                   | Under 1. | 1 and under 5. | 5 and under 15. | 15 and under 25. | 25 and under 65. | 65 and upwards. | Sunderland East.                    | Sunderland West. | Sunderland North. |                                |
| Smallpox .....                              |                                             |          |                |                 |                  |                  |                 |                                     |                  |                   |                                |
| Measles .....                               | 102                                         | 20       | 75             | 6               |                  | 1                |                 | 42                                  | 35               | 25                | 5                              |
| Scarlet Fever .....                         | 1                                           |          |                | 1               |                  |                  |                 | 1                                   |                  |                   | 1                              |
| Whooping Cough.....                         | 58                                          | 26       | 32             |                 |                  |                  |                 | 12                                  | 33               | 13                |                                |
| Diphtheria and Membranous Croup .....       | 30                                          | 1        | 20             | 9               |                  |                  |                 | 4                                   | 19               | 7                 |                                |
| Croup .....                                 |                                             |          |                |                 |                  |                  |                 |                                     |                  |                   |                                |
| Fever { Typhus .....                        |                                             |          |                |                 |                  |                  |                 |                                     |                  |                   |                                |
| Enteric .....                               | 31                                          |          | 4              | 5               | 7                | 14               | 1               | 15                                  | 11               | 5                 | 12                             |
| Other continued...                          |                                             |          |                |                 |                  |                  |                 |                                     |                  |                   |                                |
| Epidemic Influenza .....                    | 9                                           |          |                |                 |                  | 4                | 5               | 3                                   | 3                | 3                 |                                |
| Cholera .....                               |                                             |          |                |                 |                  |                  |                 |                                     |                  |                   |                                |
| Plague .....                                |                                             |          |                |                 |                  |                  |                 |                                     |                  |                   |                                |
| Diarrhoea .....                             | 122                                         | 83       | 35             | 1               |                  | 1                | 2               | 44                                  | 50               | 28                | 1                              |
| Enteritis .....                             | 39                                          | 20       | 9              | 6               |                  | 2                | 2               | 24                                  | 7                | 8                 | 5                              |
| Puerperal Fever .....                       | 7                                           |          |                |                 | 2                | 5                |                 | 1                                   | 1                | 5                 |                                |
| Erysipelas .....                            | 4                                           | 3        |                |                 | 1                |                  |                 | 1                                   | 2                | 1                 |                                |
| Other Septic Diseases.....                  | 5                                           |          |                |                 |                  | 5                |                 | 3                                   | 1                | 1                 | 3                              |
| Phthisis .....                              | 211                                         | 3        | 10             | 13              | 41               | 140              | 4               | 98                                  | 75               | 38                | 48                             |
| Other Tubercular Diseases                   | 148                                         | 38       | 60             | 25              | 11               | 14               |                 | 55                                  | 51               | 42                | 11                             |
| Cancer, Malignant Disease                   | 120                                         |          |                |                 | 1                | 90               | 29              | 54                                  | 45               | 21                | 31                             |
| Bronchitis .....                            | 305                                         | 108      | 56             | 6               | 1                | 61               | 73              | 177                                 | 83               | 45                | 28                             |
| Pneumonia .....                             | 267                                         | 55       | 75             | 10              | 11               | 75               | 41              | 104                                 | 96               | 67                | 38                             |
| Pleurisy .....                              | 9                                           |          | 1              |                 |                  | 8                |                 | 5                                   | 2                | 2                 |                                |
| Other Diseases of Respiratory Organs .....  | 11                                          | 2        |                | 3               |                  | 4                | 2               | 4                                   | 5                | 2                 | 1                              |
| Alcoholism—Cirrhosis of Liver .....         | 17                                          |          |                |                 |                  | 15               | 2               | 8                                   | 5                | 4                 | 2                              |
| Venereal Diseases .....                     | 7                                           | 6        |                |                 |                  | 1                |                 | 6                                   | 1                |                   |                                |
| Premature Birth.....                        | 88                                          | 88       |                |                 |                  |                  |                 | 33                                  | 27               | 28                | 1                              |
| Diseases and Accidents of Parturition ..... | 12                                          |          |                |                 | 2                | 10               |                 | 6                                   | 4                | 2                 | 1                              |
| Heart Diseases .....                        | 218                                         |          | 3              | 7               | 16               | 125              | 67              | 73                                  | 92               | 55                | 34                             |
| Accidents .....                             | 88                                          | 5        | 11             | 11              | 11               | 39               | 11              | 33                                  | 30               | 25                | 46                             |
| Suicides .....                              | 10                                          |          |                |                 | 1                | 8                | 1               | 4                                   | 3                | 3                 | 1                              |
| All other causes .....                      | 934                                         | 290      | 92             | 24              | 26               | 222              | 280             | 402                                 | 315              | 217               | 166                            |
| All causes .....                            | 2853                                        | 748      | 483            | 127             | 131              | 844              | 520             | 1212                                | 996              | 645               | 435                            |



TABLE V.  
BOROUGH OF SUNDERLAND.

Infantile Mortality during the Year 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

| CAUSE OF DEATH.                          |                   | Under 1 week. | 1-2 weeks. | 2-3 weeks. | 3-4 weeks. | Total under 1 month. | 1-2 months. | 2-3 months. | 3-4 months. | 4-5 months. | 5-6 months. | 6-7 months. | 7-8 months. | 8-9 months. | 9-10 months. | 10-11 months. | 11-12 months. | Total Deaths |
|------------------------------------------|-------------------|---------------|------------|------------|------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|--------------|
| All Causes                               | Certified .....   | 125           | 32         | 31         | 31         | 219                  | 57          | 58          | 48          | 42          | 45          | 50          | 35          | 44          | 50           | 37            | 36            | 721          |
|                                          | Uncertified ..... | 8             | ...        | ...        | ...        | 8                    | 6           | 3           | 1           | ...         | 1           | 2           | ...         | ...         | 1            | 4             | 1             | 21           |
| Common Infectious Diseases.              |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |              |
| Smallpox .....                           |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |              |
| Chicken-pox .....                        |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |              |
| Measles .....                            |                   |               |            |            |            |                      |             | 1           | 1           |             |             |             | 2           | 3           | 4            | 2             | 7             | 20           |
| Scarlet Fever .....                      |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |              |
| Diphtheria : Croup .....                 |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               | 1             |              |
| Whooping Cough .....                     |                   |               |            |            |            |                      | 5           | 1           | 3           |             | 2           | 2           | 1           | 5           | 1            | 1             | 5             | 20           |
| Diarrhœal Diseases.                      |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |              |
| Diarrhœa, all forms .....                |                   |               |            |            |            |                      | 1           | 7           | 13          | 9           | 11          | 13          | 7           | 4           | 6            | 9             | 3             | 83           |
| Enteritis ( <i>not Tuberculous</i> ) ..  |                   |               |            |            |            |                      | 2           | 3           | 1           | 2           | 4           | 3           | 3           | ...         | 2            | ...           | ...           | 20           |
| Gastritis, Gastro-intestinal             |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |              |
| Catarrh.....                             |                   |               | 2          |            |            | 2                    | 1           | 2           | 2           | 2           | 2           |             |             | 3           | 3            |               |               | 17           |
| Wasting Diseases.                        |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |              |
| Premature Birth .....                    |                   | 60            | 9          | 8          | 5          | 82                   | 5           | 1           |             |             |             |             |             |             |              |               |               | 88           |
| Congenital Defects .....                 |                   | 12            |            | 2          |            | 14                   | 2           | 1           |             |             | 1           |             |             |             |              |               |               | 18           |
| Injury at Birth .....                    |                   | 2             |            |            |            | 2                    |             |             |             |             |             |             |             |             |              |               |               | 2            |
| Want of Breast-milk.....                 |                   |               |            |            | 1          | 1                    | 2           |             |             |             |             |             |             |             |              |               |               | 3            |
| Atrophy, Debility, Marasmns..            |                   | 35            | 8          | 14         | 15         | 72                   | 20          | 16          | 9           | 5           | 3           | 3           | 2           | 3           | 5            | 1             |               | 139          |
| Tuberculous Diseases.                    |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |              |
| Tuberculous Meningitis .....             |                   |               |            |            |            |                      |             | 4           |             | 2           |             | 2           | 2           | 1           | 1            | 2             |               | 14           |
| Tuberculous Peritonitis : Tabes          |                   |               |            |            |            |                      |             |             | 3           | 4           | 1           | 3           |             | 1           | 2            | 3             |               | 17           |
| Mesenterica .....                        |                   |               |            |            |            |                      |             | 1           | 1           | 2           | 1           |             | 1           | 1           | 1            | 2             |               | 10           |
| Other Tuberculous Diseases ..            |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |              |
| Erysipelas. ....                         |                   |               |            |            |            |                      | 3           |             |             |             |             |             |             |             |              |               |               | 3            |
| Syphilis .....                           |                   |               |            |            | 1          | 1                    |             | 2           | 2           | 1           |             |             |             |             |              |               |               | 6            |
| Rickets .....                            |                   |               |            |            |            |                      |             |             |             |             |             | 1           |             |             |              |               |               | 2            |
| Meningitis ( <i>not Tuberculous</i> ) .. |                   |               |            | 1          | 2          | 3                    | 1           | 3           | 2           | 3           | 4           | 3           | 1           | 2           | 1            | 2             | 1             | 20           |
| Convulsions .....                        |                   | 12            | 5          | 2          |            | 19                   | 10          | 7           | 2           | 1           | 1           | 4           | 2           | 1           | 1            | 2             | 1             | 51           |
| Bronchitis .....                         |                   | 1             | 5          | 3          | 4          | 13                   | 7           | 9           | 6           | 9           | 7           | 6           | 8           | 10          | 11           | 10            | 12            | 108          |
| Laryngitis.. ..                          |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             | 1            |               |               | 1            |
| Pneumonia .....                          |                   |               |            |            |            |                      | 2           | 3           | 3           | 2           | 7           | 11          | 3           | 6           | 10           | 5             | 3             | 55           |
| Suffocation, overlaying .....            |                   |               | 1          |            | 1          | 2                    | 1           |             | 1           |             |             |             |             |             |              |               |               | 4            |
| Other Causes .....                       |                   | 9             | 2          | 1          | 2          | 14                   | 1           |             |             |             | 2           | 1           | 3           | 4           | 1            | 2             | 5             | 33           |
|                                          |                   | 133           | 32         | 31         | 31         | 227                  | 63          | 61          | 49          | 42          | 46          | 52          | 35          | 44          | 51           | 41            | 37            | 748          |

Population (estimated to middle of 1905), 152,659.

Births in the )  
Year.        /

Legitimate.....5,042.  
Illegitimate ... 181.

Deaths from all causes at all ages, 2,853

LOCAL GOVERNMENT BOARD.

TABLE V. (A.)

BOROUGH OF SUNDERLAND.

Infantile Mortality during the Year 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

| CAUSE OF DEATH.                                  |                     | Under 1 week. | 1-2 weeks. | 2-3 weeks. | 3-4 weeks. | Total under 1 month. | 1-2 months. | 2-3 months. | 3-4 months. | 4-5 months. | 5-6 months. | 6-7 months. | 7-8 months. | 8-9 months. | 9-10 months. | 10-11 months. | 11-12 months. | Total Deaths under 1 year |
|--------------------------------------------------|---------------------|---------------|------------|------------|------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------------------|
| All Causes                                       | { Certified.....    | 43            | 12         | 15         | 13         | 83                   | 26          | 23          | 24          | 17          | 19          | 24          | 15          | 17          | 22           | 20            | 17            | 307                       |
|                                                  | { Uncertified ..... | 6             | .....      | .....      | .....      | 6                    | 3           | 1           | 1           | .....       | .....       | 1           | .....       | .....       | .....        | .....         | 1             | 13                        |
| Common Infectious Diseases.                      |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Smallpox .....                                   |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Chicken-pox .....                                |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Measles .....                                    |                     |               |            |            |            |                      |             |             |             |             |             |             |             | 2           | 1            | 2             | 5             | 10                        |
| Scarlet Fever .....                              |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Diphtheria : Croup .....                         |                     |               |            |            |            |                      | 2           |             |             |             | 1           | 1           |             | 2           |              |               | 1             | 7                         |
| Whooping Cough .....                             |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Diarrhœal Diseases.                              |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Diarrhœa, all forms .....                        |                     |               |            |            |            |                      |             | 2           | 5           | 3           | 4           | 4           | 2           | 1           | 1            | 4             |               | 26                        |
| Enteritis (not Tuberculous) .....                |                     |               |            |            |            |                      | 2           | 1           | 1           |             | 1           | 1           | 1           |             | 1            |               |               | 8                         |
| Gastritis, Gastro-intestinal Catarrh.....        |                     |               | 2          |            |            | 2                    | 1           | 2           | 2           | 2           | 2           |             |             | 3           | 2            |               |               | 16                        |
| Wasting Diseases.                                |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Premature Birth .....                            |                     | 24            | 2          | 3          | 3          | 32                   | 1           |             |             |             |             |             |             |             |              |               |               | 33                        |
| Congenital Defects .....                         |                     | 1             |            |            |            | 1                    | 2           |             |             |             | 1           |             |             |             |              |               |               | 4                         |
| Injury at Birth .....                            |                     | 2             |            |            |            | 2                    |             |             |             |             |             |             |             |             |              |               |               | 2                         |
| Want of Breast-milk.....                         |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Atrophy, Debility, Marasmus..                    |                     | 14            | 2          | 7          | 8          | 31                   | 10          | 3           | 6           | 2           | 2           | 2           |             |             | 3            |               |               | 59                        |
| Tuberculous Diseases.                            |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Tuberculous Meningitis .....                     |                     |               |            |            |            |                      |             | 2           |             |             |             | 1           | 2           |             |              | 1             |               | 6                         |
| Tuberculous Peritonitis: Tabes Mesenterica ..... |                     |               |            |            |            |                      |             |             |             | 1           | 1           | 2           |             |             | 1            | 3             |               | 8                         |
| Other Tuberculous Diseases .....                 |                     |               |            |            |            |                      |             |             | 1           |             |             |             | 1           |             |              |               |               | 2                         |
| Erysipelas.....                                  |                     |               |            |            |            |                      | 1           |             |             |             |             |             |             |             |              |               |               | 1                         |
| Syphilis.....                                    |                     |               |            |            | 1          | 1                    |             | 1           | 2           | 1           |             |             |             |             |              |               |               | 5                         |
| Rickets .....                                    |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              | 1             |               | 1                         |
| Meningitis (not Tuberculous) .....               |                     |               |            | 1          |            | 1                    |             | 2           | 1           | 1           | 1           | 1           | 1           | 1           | 1            | 2             | 1             | 13                        |
| Convulsions .....                                |                     | 7             | 3          | 1          |            | 11                   | 6           | 4           | 2           |             |             | 2           | 1           |             |              |               | 1             | 27                        |
| Bronchitis .....                                 |                     | 1             | 3          | 3          | 1          | 8                    | 3           | 6           | 4           | 6           | 5           | 4           | 6           | 7           | 7            | 7             | 7             | 70                        |
| Laryngitis.....                                  |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Pneumonia .....                                  |                     |               |            |            |            |                      | 1           | 1           | 1           | 1           |             | 6           |             |             | 4            | 1             | 2             | 17                        |
| Suffocation, overlaying .....                    |                     |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                           |
| Other Causes .....                               |                     |               |            |            |            |                      |             |             |             |             | 1           | 1           | 1           | 1           |              |               | 2             | 6                         |
|                                                  |                     | 49            | 12         | 15         | 13         | 89                   | 29          | 24          | 25          | 17          | 19          | 25          | 15          | 17          | 22           | 20            | 18            | 320                       |

District of SUNDERLAND EAST.

Population (estimated to middle of 1905), 56,463.

Births in the } Legitimate.....1,924.  
Year        } Illegitimate ...   81.

Deaths from all causes at all ages, 1,212.



LOCAL GOVERNMENT BOARD.

TABLE V. (B)

BOROUGH OF SUNDERLAND.

Infantile Mortality during the Year 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

| CAUSE OF DEATH.                                      |                   | Under 1 week. | 1-2 weeks. | 2-3 weeks. | 3-4 weeks. | Total under 1 month. | 1-2 months. | 2-3 months. | 3-4 months. | 4-5 months. | 5-6 months. | 6-7 months. | 7-8 months. | 8-9 months. | 9-10 months. | 10-11 months. | 11-12 months. | Total Deaths under 1 year. |
|------------------------------------------------------|-------------------|---------------|------------|------------|------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|----------------------------|
| All Causes                                           | Certified .....   | 40            | 13         | 8          | 10         | 71                   | 21          | 19          | 18          | 13          | 19          | 10          | 12          | 12          | 13           | 10            | 10            | 228                        |
|                                                      | Uncertified ..... | 1             |            |            |            | 1                    | 2           | 1           |             |             |             | 1           |             |             | 1            | 1             |               | 7                          |
| Common Infectious Diseases.                          |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Smallpox .....                                       |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Chicken-pox .....                                    |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Measles .....                                        |                   |               |            |            |            |                      |             | 1           | 1           |             |             |             | 1           | 1           | 1            |               | 1             | 6                          |
| Scarlet Fever .....                                  |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Diphtheria : Croup .....                             |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Whooping Cough .....                                 |                   |               |            |            |            |                      | 3           | 1           | 3           |             |             | 1           | 1           | 1           | 1            |               | 4             | 15                         |
| Diarrhœal Diseases.                                  |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Diarrhœa, all forms .....                            |                   |               |            |            |            |                      | 1           | 2           | 6           | 3           | 6           | 6           | 3           | 1           | 4            | 4             | 2             | 38                         |
| Enteritis ( <i>not Tuberculous</i> ) ..              |                   |               |            |            |            |                      |             | 2           |             |             | 1           |             | 1           |             |              |               |               | 4                          |
| Gastritis, Gastro-intestinal Catarrh.....            |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             | 1            |               |               | 1                          |
| Wasting Diseases.                                    |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Premature Birth .....                                |                   | 15            | 4          | 3          | 2          | 24                   | 2           | 1           |             |             |             |             |             |             |              |               |               | 27                         |
| Congenital Defects.....                              |                   | 8             |            | 1          |            | 9                    |             |             |             |             |             |             |             |             |              |               |               | 9                          |
| Injury at Birth .....                                |                   | 1             |            |            |            | 1                    |             |             |             |             |             |             |             |             |              |               |               | 1                          |
| Want of Breast-milk.....                             |                   |               |            |            | 1          | 1                    | 2           |             |             |             |             |             |             |             |              |               |               | 3                          |
| Atrophy, Debility, Marasmus..                        |                   | 9             | 4          | 3          | 4          | 20                   | 7           | 7           | 3           | 1           | 1           |             | 2           | 2           |              |               |               | 43                         |
| Tuberculous Diseases.                                |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Tuberculous Meningitis .....                         |                   |               |            |            |            |                      |             | 2           |             | 1           |             |             |             | 1           |              | 1             |               | 5                          |
| Tuberculous Peritonitis :<br>Tabes Mesenterica ..... |                   |               |            |            |            |                      |             |             | 2           | 2           |             | 1           |             |             |              |               |               | 5                          |
| Other Tuberculous Diseases ..                        |                   |               |            |            |            |                      |             |             |             | 2           | 1           |             |             | 1           | 1            |               |               | 5                          |
| Erysipelas .....                                     |                   |               |            |            |            |                      | 1           |             |             |             |             |             |             |             |              |               |               | 1                          |
| Syphilis .....                                       |                   |               |            |            |            |                      |             | 1           |             |             |             |             |             |             |              |               |               | 1                          |
| Rickets .....                                        |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Meningitis ( <i>not Tuberculous</i> )...             |                   |               |            |            |            |                      |             | 1           |             | 1           | 2           |             |             |             |              |               |               | 4                          |
| Convulsions .....                                    |                   | 4             | 1          | 1          |            | 6                    | 2           | 1           |             |             |             | 2           |             | 1           | 1            |               |               | 13                         |
| Bronchitis .....                                     |                   |               | 1          |            | 1          | 2                    | 3           | 1           | 2           | 2           | 1           |             | 2           | 1           | 4            | 3             | 1             | 22                         |
| Laryngitis .....                                     |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Pneumonia .....                                      |                   |               |            |            |            |                      |             |             |             | 1           | 6           | 1           |             | 2           | 1            | 1             |               | 13                         |
| Suffocation, overlaying .....                        |                   |               | 1          |            | 1          | 2                    | 1           |             | 1           |             |             |             |             |             |              |               |               | 4                          |
| Other Causes .....                                   |                   | 4             | 2          |            | 1          | 7                    | 1           |             |             |             | 1           |             | 1           | 1           |              | 2             | 2             | 15                         |
|                                                      |                   | 41            | 13         | 8          | 10         | 72                   | 23          | 20          | 18          | 13          | 19          | 11          | 12          | 12          | 14           | 11            | 10            | 235                        |

District of SUNDERLAND WEST.      Population (estimated to middle of 1905), 62,737

Births in the \    Legitimate.....1,980.  
Year        /    Illegitimate ...    72.                      Deaths from all causes at all ages, 996.



## LOCAL GOVERNMENT BOARD.

TABLE V. (C).

## BOROUGH OF SUNDERLAND.

## Infantile Mortality during the Year 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

| CAUSE OF DEATH.                                  |                   | Under 1 week. | 1-2 weeks. | 2-3 weeks. | 3-4 weeks. | Total under 1 month. | 1-2 months. | 2-3 months. | 3-4 months. | 4-5 months. | 5-6 months. | 6-7 months. | 7-8 months. | 8-9 months. | 9-10 months. | 10-11 months. | 11-12 months. | Total Deaths under 1 year. |
|--------------------------------------------------|-------------------|---------------|------------|------------|------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|----------------------------|
| All Causes                                       | Certified .....   | 42            | 7          | 8          | 8          | 65                   | 10          | 16          | 6           | 12          | 7           | 16          | 8           | 15          | 15           | 7             | 9             | 186                        |
|                                                  | Uncertified ..... | 1             |            |            |            | 1                    | 1           | 1           |             |             | 1           |             |             |             |              | 3             |               | 7                          |
| Common Infectious Diseases.                      |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Smallpox .....                                   |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Chicken-pox .....                                |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Measles .....                                    |                   |               |            |            |            |                      |             |             |             |             |             |             | 1           |             | 2            |               | 1             | 4                          |
| Scarlet Fever .....                              |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               | 1             | 1                          |
| Diphtheria: Croup .....                          |                   |               |            |            |            |                      |             |             |             |             | 1           |             |             | 2           |              | 1             |               | 4                          |
| Whooping Cough .....                             |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Diarrhœal Diseases.                              |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Diarrhœa, all forms .....                        |                   |               |            |            |            |                      |             | 3           | 2           | 3           | 1           | 3           | 2           | 2           | 1            | 1             | 1             | 19                         |
| Enteritis ( <i>not Tuberculous</i> ) .....       |                   |               |            |            |            |                      |             |             |             | 2           | 2           | 2           | 1           |             | 1            |               |               | 8                          |
| Gastritis, Gastro-intestinal Catarrh .....       |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Wasting Diseases.                                |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Premature Birth .....                            |                   | 21            | 3          | 2          |            | 26                   | 2           |             |             |             |             |             |             |             |              |               |               | 28                         |
| Congenital Defects .....                         |                   | 3             |            | 1          |            | 4                    |             | 1           |             |             |             |             |             |             |              |               |               | 5                          |
| Injury at Birth .....                            |                   | 1             |            |            |            | 1                    |             |             |             |             |             |             |             |             |              |               |               | 1                          |
| Want of Breast-milk .....                        |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Atrophy, Debility, Marasmus..                    |                   | 12            | 2          | 4          | 3          | 21                   | 3           | 6           |             | 2           |             | 1           |             | 1           | 2            | 1             |               | 37                         |
| Tuberculous Diseases.                            |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Tuberculous Meningitis .....                     |                   |               |            |            |            |                      |             |             |             | 1           |             | 1           |             |             | 1            |               |               | 3                          |
| Tuberculous Peritonitis: Tabes Mesenterica ..... |                   |               |            |            |            |                      |             |             | 1           | 1           |             |             |             | 1           | 1            |               |               | 4                          |
| Other Tuberculous Diseases ..                    |                   |               |            |            |            |                      |             | 1           |             |             |             |             |             |             |              | 2             |               | 3                          |
| Erysipelas .....                                 |                   |               |            |            |            |                      | 1           |             |             |             |             |             |             |             |              |               |               | 1                          |
| Syphilis .....                                   |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Rickets .....                                    |                   |               |            |            |            |                      |             |             |             |             |             | 1           |             |             |              |               |               | 1                          |
| Meningitis ( <i>not Tuberculous</i> ) ..         |                   |               |            |            | 2          | 2                    | 1           |             | 1           | 1           | 1           | 2           |             | 1           |              |               |               | 9                          |
| Convulsions .....                                |                   | 1             | 1          |            |            | 2                    | 2           | 2           |             | 1           | 1           |             | 1           |             |              | 2             |               | 11                         |
| Bronchitis .....                                 |                   |               | 1          |            | 2          | 3                    | 1           | 2           |             | 1           | 1           | 2           |             | 2           |              |               | 4             | 16                         |
| Laryngitis .....                                 |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             | 1            |               |               | 1                          |
| Pneumonia .....                                  |                   |               |            |            |            |                      | 1           | 2           | 2           |             | 1           | 4           | 2           | 4           | 5            | 3             | 1             | 25                         |
| Suffocation, overlaying .....                    |                   |               |            |            |            |                      |             |             |             |             |             |             |             |             |              |               |               |                            |
| Other Causes .....                               |                   | 5             |            | 1          | 1          | 7                    |             |             |             |             |             |             | 1           | 2           | 1            |               | 1             | 12                         |
|                                                  |                   | 43            | 7          | 8          | 8          | 66                   | 11          | 17          | 6           | 12          | 8           | 16          | 8           | 15          | 15           | 10            | 9             | 193                        |

District of SUNDERLAND NORTH.

Population (estimated to middle of 1905), 33,459.

Births in the } Legitimate .....1,138.  
 Year } Illegitimate ... 28.

Deaths from all causes at all ages, 645.





# PLAN OF THE BOROUGH OF SUNDERLAND

The dotted lines show the divisions of the Borough into Registration Sub-Districts, whose names are indicated as follows:—

**S.E.**—Sunderland East; **S.W.**—Sunderland West; and **S.N.**—Sunderland North.

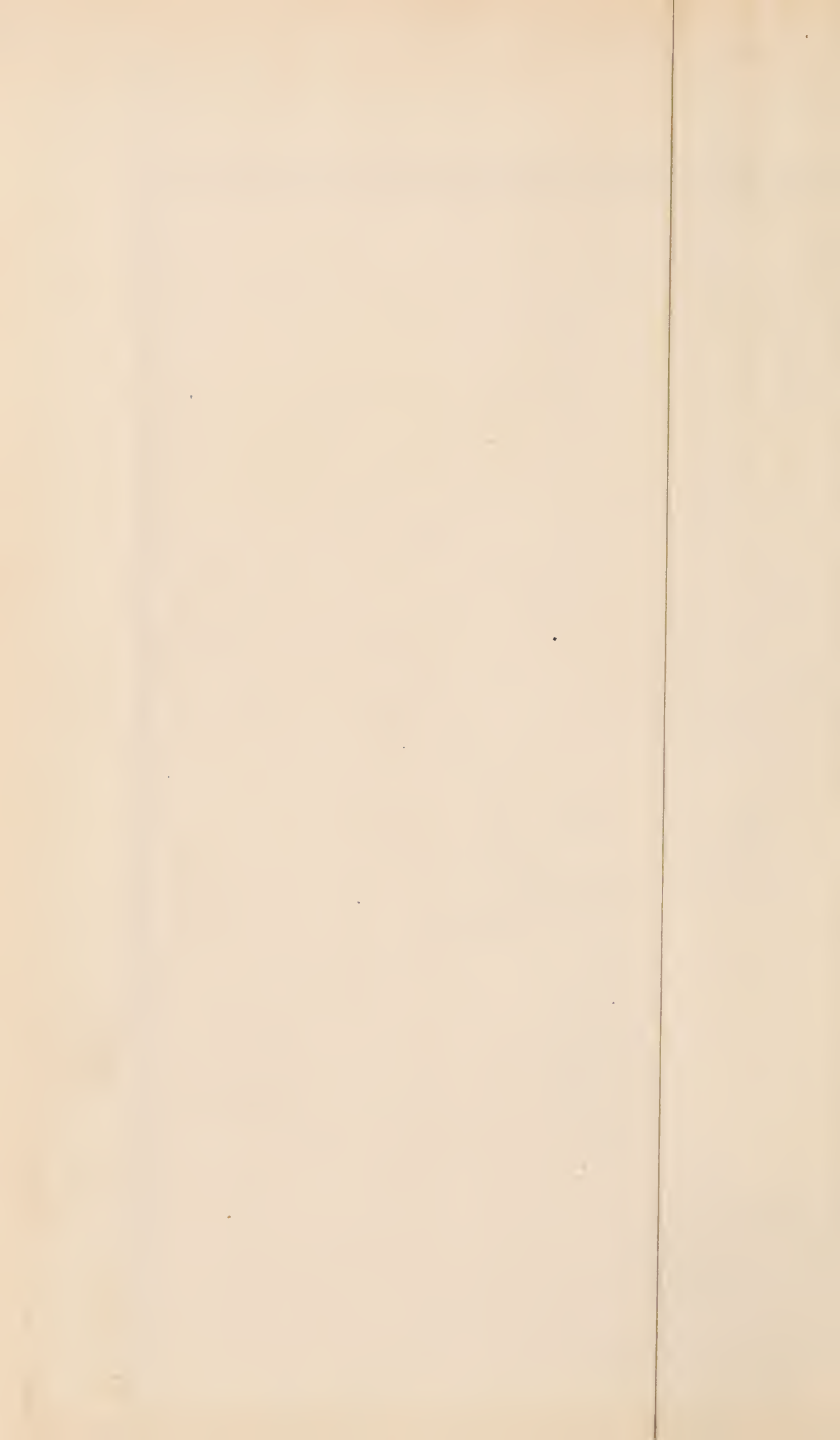
Showing the Deaths from Diarrhoea and Consumption, and the cases of Diphtheria, Enteric Fever and Continued Fever notified during the year 1905.

|                               | ESTIMATED POPULATION. |
|-------------------------------|-----------------------|
| Sunderland East Sub-District  | 56,463                |
| Sunderland West Sub-District  | 62,737                |
| Sunderland North Sub-District | 33,459                |
| Whole Borough                 | 152,659               |

Cases of Enteric and Continued Fevers in **RED**.  
Cases of Diphtheria in **YELLOW**.  
Deaths from Diarrhoea in **GREEN**.  
Deaths from Consumption in **BLACK**.









# METEOROLOGICAL AND DISEASE CHART FOR 1905.

